



# Career Cluster Resources for Business, Management and Administration





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## **Introduction**

### **The States' Career Cluster Initiative**

**9/01/02**

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The U.S. Department of Education Office of Vocational and Adult Education (OVAE) has identified 16 career clusters representing career opportunities for the 21<sup>st</sup> century economy. These clusters will frame student opportunities as they pursue postsecondary education and a wide range of career opportunities from front-line to professional and managerial careers.

Helping students make their dreams become a reality was the driving force behind the nation's Career Clusters initiative launched June 1, 2001. Twelve lead states and the District of Columbia were partners in the development of the tools supporting eleven career clusters which, when combined with the five clusters that have already been developed, will represent all career possibilities.

The National Association of State Directors for Career and Technical Education Consortium (NASDCTEc) and their Board of Directors assumed leadership for coordinating the project. This in itself was unique for a project of this scope. The Board and the State Directors organization believed that this initiative was of such potential impact on the Career Technical delivery system in the country that they needed to play this leadership role in the project, assuring that the materials had utility in their states once completed. Therefore, the NASDCTEc in conjunction with the State of Oklahoma (the project fiscal agent) prepared and submitted a proposal to OVAE in January of 2001. This proposal was funded at a \$2.2 million dollar level, with expectations of a second year of funding of \$2.5 million. The plan to develop eleven curriculum frameworks was very aggressive, given that each of the prior projects, designed to develop and pilot test materials for a single cluster, had received in excess of \$1 million dollars for their multiyear development work.

The project was designed to establish curriculum frameworks and supportive materials for each cluster, with a broad-based advisory committee for each cluster, led by a state. There was also a National Advisory Committee consisting of members from each of the cluster committees, along with other stakeholders. The National and State Cluster advisory committees were responsible for identifying the frameworks, pathway and foundation knowledge and skills, and other supportive

materials. The committees included representatives from states, schools, education and training, business and industry, associations, and others directly impacted by the materials.

The development of materials for each of the eleven clusters was led by a different state, with business and industry at the helm. The lead states included: Idaho and Iowa (jointly leading the Agriculture, Food and Natural Resources cluster), Pennsylvania (Architecture and Construction), Ohio (Marketing, Sales and Service), North Dakota (Finance), West Virginia (Hospitality and Tourism), South Carolina (Business, Management and Administration), Kentucky (Human Services), Arkansas (Law, Public Safety and Security), North Carolina (Science, Technology, Engineering and Mathematics), Michigan (Education and Training), and Oklahoma and the District of Columbia/Washington D.C. (jointly leading the Government and Public Administration cluster).

The five additional career clusters included Health Science led by the State of Utah, Manufacturing led by the State of Indiana, Arts, Audio Video Technology and Communications led by the V-TECS Consortium, Information Technology led by the Educational Development Center, Inc., and Transportation, Distribution and Logistics Cluster led by the State of Illinois. These clusters plan to complete their work by June 30 of 2003.

To facilitate and coordinate the developmental work of the Cluster Initiative, staff was identified and housed at the Oklahoma Department of Career and Technical Education. The staff consisted of four Cluster Coordinators: Marsha Daves, Greg Dewald, Curtis Shumaker, and Pam Stacey. Additionally, Denise Christy provided research and web development support, Lisa Batchelder provided financial support, and Karan Smith provided administrative support.

Development work for the States' Career Clusters Initiative began June 1, 2001, and the first meeting of lead states, OVAE staff, and cluster staff was held in Oklahoma City in mid-June. At this meeting, project objectives, general direction, timelines, and the initial research goals were identified. This work continued through the fall and winter of 2001 and included the identification of cluster advisory committee members, the development of cluster frameworks based on the prototype cluster models provided by V-TECS, and the identification of occupations and draft pathways along with degrees and certificates associated with the career specialties/occupations in each of the clusters.

In January of 2002, the lead state teams were brought together in Phoenix to begin the process of developing knowledge and skill statements for each of the cluster pathways and foundations. Contracted writers and lead state cluster advisory committee members, depending upon

the decisions of cluster leadership, carried out this work. A part-time editor in Oklahoma provided consistency across the cluster knowledge and skill statements. One concern that was addressed early in the process was the need for a “common look and feel” across the clusters. Ultimately, this was accomplished not only for the eleven clusters in the States’ Career Clusters Initiative, but also through close cooperative relationships between the projects, all the cluster knowledge and skill statements were developed (or retro-fitted) using the same format. This format includes a knowledge/skill statement with associated performance elements and measurement criteria. This format provides the tools needed for curriculum and assessment developers as they take the materials to the classroom.

The National Advisory Committee met in March of 2002, and reviewed the curriculum frameworks, credentials list, and lead state advisory committee memberships and structures, and forwarded those materials to the Executive Committee for the Project. The Executive Committee, made up of the Board of the NASDCTEc, also met in March, approved the materials and discussed the future actions needed to assure implementation of the cluster materials.

Originally, the project was designed for a minimum of two years and was to include the identification of 110 pilot test sites across the country, along with the development of assessments and certifications for the clusters. The Office of Vocational and Adult Education, however, determined in November of 2001 that the goals of the project were “too broad”, and terminated the project as of September 30, 2002.

Development of the products needed for curriculum and assessment was fast-tracked, with the knowledge and skill statements, performance elements and measurement criteria ready for validation by July 15, 2002. This was the result of a major effort of lead state advisory committees and staff responding to the shortened timeline and the need for quality product.

Given the efforts of the developmental teams, cluster advisory committee members were able to review and validate the knowledge and skills and supporting elements. Additionally, a national web-based validation was conducted from July 15 to August 15, 2002. All 50 states were invited to a dissemination meeting held in Charleston, South Carolina Sept 13, 2002, where the materials were distributed to participants for their use in updating their curriculum.

For further information on the status of the materials, go to the web-site, <http://www.careerclusters.org/>.



## **Section I – Pathway Model**





**Business, Management and Administration careers encompass planning, organizing, directing and evaluating business functions essential to efficient and productive business operations. Business Management and Administration career opportunities are available in every sector of the economy.**

<p><b>Sample Career Specialties / Occupations</b></p>	<p>Entrepreneurs•Chief Executives•General Managers•Accounting Manager•Accounts Payable Manager•Assistant Credit &amp; Benefits Manager•Business &amp; Development Manager•Compensation Collections Manager•Payroll Manager•Risk Manager•Operations Managers•Public Relations Managers•Human Resource Managers•Management Analysts•Facilities Managers•Association Managers•Meeting &amp; Convention Planners•Administrative Services Managers•Sports &amp; Entertainment Managers•Hospital Management•Government Management•Public Organization Management•Manufacturing Management•Purchasing Management•First Line Supervisors•Public Relations Specialists•Senior Managers•Management Trainees•</p>	<p>Accountants•Accounting Clerk•Accounting Supervisor•Adjuster•Adjustment Clerk•Assistant Treasurer•Auditor•Bookkeeper•Budget Analyst•Budget Manager•Billing Supervisor•Cash Manager•Controller•Merger &amp; Acquisitions Manager•Price Analyst•Top Collections Executive•Top Investment Executive•Treasurer•Chief Financial Officer•Finance Director•Certified Public Accountant•Accounts Receivable Clerk•Cost Accountant•Financial Accountant•Billing Clerk•Payroll Accounting Clerk</p>	<p>Human Resources Managers•International Human Resources Managers•Human Resources Coordinators•Industrial Relations Director•Compensation &amp; Benefits Managers•Employment &amp; Placement Managers•Employee Assistance Plan Managers•Training &amp; Development Managers•Human Resources consultant•Corporate Trainer• Training &amp; Development Specialists•Conciliators/Mediators/Arbitrators•Employer Relations Representatives•Labor &amp; Personnel Relations Specialists•Affirmative Action Coordinators•Equal Employment Opportunity Specialists•OSHA/ADA Compliance Officer•Pay Equity Officers•Interpreters &amp; Translators•Organizational Behaviorists•Occupational Analysts•Compensation, Benefits &amp; Job Analyst Specialists•Human Resources Information Systems Specialists•Meeting &amp; Convention Planners•Employment Interviewers, Private or Public Employment Service•Personnel Recruiters•Human Resources Assistants•Payroll Professional•Assignment Clerks•Identification Clerks•Human Resources Generalist•Human Resources Clerks</p>	<p>Systems Analysts•E-Commerce Analysts•Requirements Specialist•Marketing Analysts•Operations Research Consultant•Business Analyst•Budget Analyst•Product Manager•Price Analyst</p>	<p>Marketing Manager•Assistant Marketing Manager•Sales Engineer•Sales Manager•Sales Representative•Broker•Agents•Assistant Store Manager•Department Manager•Assistant Department Manager•Salesperson•Customer Service Supervisor•Customer Service Consultant•Counter Person•Customer Service Clerk•Product Manager•Research &amp; Management Supervisor•International Marketing Manager &amp; Supervisor•International Merchandising Manager &amp; Supervisor•Marketing Manager•Property, Real Estate and Association Manager &amp; Supervisor•Small Business Owner &amp; Entrepreneur•E-commerce Manager &amp; Entrepreneur•Wholesale &amp; Retail buyer•International Distribution Manager•Warehouse Manager•Logistics Manager•Supervisor•Logistics Coordinator•Market Researcher•Marketing Information Manager•Public Relations Specialist•Public Relations Writer•Copywriter•Media coordinator•Art Director•Graphic Designer•Event Manager•Advertising Salesperson•Route Salesperson•Distribution Worker•Wholesale, Freight, Stocking, Handling, Material Moving and Packing Worker•Traffic, Shipping, &amp; Receiving Clerk•Demonstrators and Product Promoter•Retail Salespeople &amp; Associate•Telemarketer</p>	<p>Administrative Assistant•Executive Assistant•Office Manager•Administrative Support•Medical Front Office Assistant•Information Assistant•Desktop Publisher•Customer Service Assistant•Data Entry Specialist•Receptionist•Communications Equipment Operator•Computer Operator•Court Reporter•Stenographer•Dispatcher•Shipping &amp; Receiving Personnel•Records Processing Occupations including Library Assistant &amp; Order Processor•Word Processor•Typists•Medical Transcriptionist•Legal Secretaries•Paralegals</p>
<p><b>Pathways</b></p>	<p><b>Management</b></p>	<p><b>Business Financial &amp; Accounting</b></p>	<p><b>Human Resources</b></p>	<p><b>Business Analysis</b></p>	<p><b>Marketing</b></p>	<p><b>Administrative &amp; Information Support</b></p>
<p><b>Cluster K&amp;S</b></p>	<p><b>Cluster knowledge and skills</b></p> <ul style="list-style-type: none"> <li>◆ Academic Foundations ◆ Communications ◆ Problem Solving and Critical Thinking ◆ Information Technology Applications ◆ Systems ◆ Safety, Health and Environmental ◆ Leadership and Teamwork ◆ Ethics and Legal Responsibilities ◆ Employment and Career Development ◆ Technical Skills</li> </ul>					





## **Section II – Cluster Knowledge and Skills**



## Cluster Knowledge and Skill Statement

### Communications

**Statement:** *Comprehend and use reading strategies to learn meaning, technical concepts, vocabulary and follow directions.*

**Performance Element:** Use purpose as a context to select reading strategies and read text.

**Measurement Criteria:** *Identify purpose of business correspondence and documents.*

**Measurement Criteria:** *Identify complexity of business correspondence and documents.*

**Measurement Criteria:** *Use at least one reading strategy (skimming, reading for detail, reading for meaning and other critical analysis) for business correspondence and documents, and describe why you selected that strategy.*

**Performance Element:** Analyze business correspondence and documents read to learn meaning, technical concepts, vocabulary and follow directions.

**Measurement Criteria:** *Determine relevance, accuracy and appropriateness of business correspondence and documents.*

**Measurement Criteria:** *Integrate information with prior knowledge.*

**Measurement Criteria:** *Identify complexities and discrepancies in information.*

**Measurement Criteria:** *Analyze information presented in a variety of formats such as tables, lists and figures.*

**Performance Element:** Interpret, transcribe and communicate information, data, and observations to apply information learned from reading to actual practice.

**Measurement Criteria:** *Explain meaning of new terms, vocabulary and concepts.*

**Measurement Criteria:** *Interpret technical materials used.*

**Measurement Criteria:** *Write specific steps for applying information learned to task or new situation.*

**Measurement Criteria:** *Write set of directions for others sharing information learned and applying that task or new situation.*

**Statement:** *Compose and prepare written communications to convey technical concepts and company information.*

**Performance Element:** Employ writing skills to compose business letters and correspondence.

**Measurement Criteria:** *Communicate main ideas and supporting facts.*

**Measurement Criteria:** *Use correct spelling, punctuation, and capitalization.*

**Measurement Criteria:** *Use correct grammar and sentence structure.*

**Measurement Criteria:** *Organize and arrange information for effective coherence.*

**Measurement Criteria:** *Provide for cost efficiency*

**Performance Element:** Use writing and organizational skills to construct reports, graphs and tables.

**Measurement Criteria:** *Compile and arrange information to communicate main facts.*

**Measurement Criteria:** *Document sources and references of data.*

**Measurement Criteria:** *Organize and arrange information for effective coherence.*

## Cluster Knowledge and Skill Statement

**Performance Element: Use technology to design and develop multimedia materials.**

**Measurement Criteria:** *Use appropriate software to develop text, charts, graphs or figures.*

**Measurement Criteria:** *Use correct spelling, punctuation, capitalization and grammar.*

**Measurement Criteria:** *Compile and arrange information to communicate main facts.*

**Measurement Criteria:** *Document sources and references of data.*

**Measurement Criteria:** *Organize and arrange information for effective coherence.*

**Performance Element: Use description of audience and purpose to prepare written documents.**

**Measurement Criteria:** *Use technical terms and concepts.*

**Measurement Criteria:** *Incorporate and use references effectively and accurately.*

**Measurement Criteria:** *Report objective and/or subjective information.*

**Statement: Interpret verbal and nonverbal messages to enhance communication with co-workers and external customers.**

**Performance Element: Interpret behaviors to enhance communication.**

**Measurement Criteria:** *Identify verbal cues.*

**Measurement Criteria:** *Explain message conveyed by verbal behaviors.*

**Performance Element: Interpret nonverbal behaviors to enhance communication.**

**Measurement Criteria:** *Interpret nonverbal cues.*

**Measurement Criteria:** *Observe eye contact, facial expressions, posture, gestures and other body language.*

**Measurement Criteria:** *Explain message conveyed by nonverbal behaviors.*

**Performance Element: Respond effectively to individuals, groups and in informal discussions.**

**Measurement Criteria:** *Explain company procedures and policies.*

**Measurement Criteria:** *Direct inquiries to appropriate location for response.*

**Measurement Criteria:** *Greet visitors and clients respectfully and promptly.*

**Measurement Criteria:** *Achieve purpose and objectives of discussion by participating in meetings and staying on the subject/task.*

**Measurement Criteria:** *Reflect appropriate volume, rate and clarity in voice.*

**Measurement Criteria:** *Respond to questions and comments on presentation effectively.*

**Measurement Criteria:** *Use telephone etiquette to conduct company business.*

**Statement: Develop and deliver formal and informal presentations relating to a broad range of business topics.**

**Performance Element: Use description of audience and purpose to prepare oral presentations.**

**Measurement Criteria:** *Know subject matter.*

**Measurement Criteria:** *Identify characteristics of the audience and adjust to their ability to understand.*

**Measurement Criteria:** *Use technical terms and concepts correctly.*

**Measurement Criteria:** *Use proper organization and structure to achieve coherence of major points.*

## Cluster Knowledge and Skill Statement

**Performance Element: Identify and prepare support materials to prepare oral presentation.**

**Measurement Criteria:** *Identify media and visual aids appropriate to understanding of topic.*

**Measurement Criteria:** *Operate any equipment used with support materials smoothly and efficiently.*

**Measurement Criteria:** *Prepare visual aids and support materials for easy viewing and without error.*

**Performance Element: Deliver presentation to sustain listener's attention and interest.**

**Measurement Criteria:** *Deliver presentation without grammatical error.*

**Measurement Criteria:** *Speak clearly with appropriate volume, rate and gestures.*

**Measurement Criteria:** *Use support materials in the presentation that enhance the understanding of the topic and the interest level of the audience.*

**Measurement Criteria:** *Evaluate listeners' interest and receptiveness.*

**Measurement Criteria:** *Use verbal and nonverbal feedback strategies to engage discussion and adjust message and delivery.*

**Measurement Criteria:** *Respond to questions and comments on presentation.*

**Statement:** *Exhibit people skills to deal positively with a variety of personalities and diverse individuals.*

**Performance Element: Use positive strategies to resolve conflicts.**

**Measurement Criteria:** *Control and channel emotions.*

**Measurement Criteria:** *Respond positively to praise or criticism.*

**Measurement Criteria:** *Provide constructive praise or criticism.*

**Measurement Criteria:** *Respond positively to coaching and requests.*

**Performance Element: Exhibit respect to manage group activities.**

**Measurement Criteria:** *Work together positively with team members.*

**Measurement Criteria:** *Exhibit proper etiquette.*

**Measurement Criteria:** *Respond effectively to questions and comments.*

**Performance Element: Be understanding to provide good customer/client service.**

**Measurement Criteria:** *Communicate accurate information in a timely manner.*

**Measurement Criteria:** *Hear concern or inquiry and recommend appropriate person or department to handle situation.*

**Measurement Criteria:** *Address customer or client's concern.*

**Statement:** *Apply active listening skills to obtain and clarify information.*

**Performance Element: Reflect on message/information given to clarify information.**

**Measurement Criteria:** *Determine complexity of discussion.*

**Measurement Criteria:** *Identify effect of physical, social and psychological factors on ability to listen*

**Measurement Criteria:** *Explain the message given.*

## Cluster Knowledge and Skill Statement

**Performance Element: Respond with restatement and clarification techniques to clarify information.**

**Measurement Criteria:** *Ask questions to seek or confirm understanding.*

**Measurement Criteria:** *Paraphrase or repeat information.*

**Measurement Criteria:** *Record and summarize information in written notes.*

**Measurement Criteria:** *Follow directions and/or respond in a positive way with clear, concise comments.*

**Statement: Interpret and use tables, charts and figures to support written and oral communication.**

**Performance Element: Develop tables, charts and figures to support written and oral communication**

**Measurement Criteria:** *Compile facts and arrange in organized manner for a table, chart or figure.*

**Measurement Criteria:** *Document sources of data.*

**Measurement Criteria:** *Determine most appropriate way to display data for effective coherence.*

**Measurement Criteria:** *Prepare table, chart, graph or figure for inclusion in publication or presentation.*

**Performance Element: Interpret tables, charts and figures used to support written and oral communication.**

**Measurement Criteria:** *Evaluate reference or source of data for authenticity and reliability.*

**Measurement Criteria:** *Explain information presented in tables, charts and figures.*

**Measurement Criteria:** *Prepare written summary of findings expressed in tables, charts and figures.*

**Statement: Locate, organize and reference written information from various sources to communicate with co-workers and clients/participants.**

**Performance Element: Locate written information to communicate with co-workers and clients/participants.**

**Measurement Criteria:** *Identify topic.*

**Measurement Criteria:** *Conduct search of information using card catalog, keywords, and/or search engines.*

**Measurement Criteria:** *Locate variety of resources such as books, journals, and magazines.*

**Measurement Criteria:** *Locate information from electronic forms including the Internet.*

**Performance Element: Organize information to use in written and oral communications.**

**Measurement Criteria:** *Read and take notes from selected resources.*

**Measurement Criteria:** *Prepare outline that emphasizes major points with supporting data.*

**Measurement Criteria:** *Present information in organized, easy-to-follow manner.*

## Cluster Knowledge and Skill Statement

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**Performance Element:** Document the source and proper reference to use in written information.

**Measurement Criteria:** *Prepare a bibliography.*

**Measurement Criteria:** *Footnote excerpts and quotations.*

**Measurement Criteria:** *Follow rules and regulations relating to plagiarism and copyright.*

## Cluster Knowledge and Skill Statement

### Problem Solving and Critical Thinking

**Statement:** *Apply accepted problem solving methods to solve business problems.*

**Performance Element:** **Apply logic and common sense to identify the problem.**

**Measurement Criteria:** *Define the problem in concrete terms.*

**Measurement Criteria:** *Identify all affected parties.*

**Performance Element:** **Prepare acceptable outcomes to identify alternatives.**

**Measurement Criteria:** *Brainstorm possible alternatives.*

**Measurement Criteria:** *List the alternatives.*

**Performance Element:** **Visualize outcomes to evaluate the alternatives.**

**Measurement Criteria:** *Explore the consequences and potential impact of each alternative.*

**Measurement Criteria:** *Evaluate the feasibility of each alternative.*

**Performance Element:** **Rank options to select a solution.**

**Measurement Criteria:** *Rank alternative solutions.*

**Measurement Criteria:** *Choose the best solution.*

**Performance Element:** **Implement and evaluate the decision to make sure the best solutions was selected.**

**Measurement Criteria:** *Implement the decision.*

**Measurement Criteria:** *Compare and contrast the actual outcome with the anticipated outcome.*

**Measurement Criteria:** *Formulate a corrective action plan as necessary*

## Cluster Knowledge and Skill Statement

### Information Technology Applications

**Statement:** *Use technology based tools to accomplish business services and planning.*

**Performance Element:** Use computer applications to locate, select and manage business information.

**Measurement Criteria:** *Identify and locate information sources using technology.*

**Measurement Criteria:** *Use local and wide area networks.*

**Measurement Criteria:** *Select relevant information by applying accepted research methods.*

**Measurement Criteria:** *Obtain a functional use of software (word processing, database, spreadsheet, presentation, graphics, etc.)*

**Performance Element:** Operate technology tools to perform business applications.

**Measurement Criteria:** *Manage and maintain technology tools.*

**Measurement Criteria:** *Diagnose and solve common technology problems.*

**Measurement Criteria:** *Efficient use of input devices.*

**Measurement Criteria:** *Efficient use of outcome devices.*

**Performance Element:** Operate technology tools to explore and solve business problems.

**Measurement Criteria:** *Observe, analyze, interpret and draw conclusions using technology to resolve business problems.*

**Measurement Criteria:** *Use technology to evaluate, combine and extend information to resolve business problems.*

**Statement:** *Use technology responsibly to apply its functions and understand its impact.*

**Performance Element:** Examine selected situations to discriminate between responsible and irresponsible uses of technology.

**Measurement Criteria:** *Explain ethical and legal behavior regarding software.*

**Measurement Criteria:** *Recognize an original idea and its appropriate use and restraints*

**Measurement Criteria:** *Explain the purpose and use of filtering (i.e., Spam)*

**Performance Element:** Research available business technologies to evaluate the ways technology impacts culture and daily living.

**Measurement Criteria:** *Integrate use of technology into daily activities.*

**Measurement Criteria:** *Recognize the implications of emerging technologies.*

**Statement:** *Use technology to express ideas and exchange business information.*

**Performance Element:** Use multimedia to convey business ideas.

**Measurement Criteria:** *Prepare a graphic media presentation.*

**Measurement Criteria:** *Prepare presentation notes for a variety of audiences.*

**Performance Element:** Use technology to exchange business information.

**Measurement Criteria:** *Compare methods for interacting with others using technology.*

**Measurement Criteria:** *Use communications technology to exchange ideas and information (such as email, GroupWare, WebEx, etc.).*

## Cluster Knowledge and Skill Statement

### Systems

**Statement:** *Understand roles within teams, work units, departments, and organizations to identify the effect of systems on the activities of a business.*

**Performance Element:** Review sources to trace the development of a business and learn the overall structure.

**Measurement Criteria:** *Identify early stages and growth of a business.*

**Measurement Criteria:** *Analyze current trends in society and how they affect a business.*

**Measurement Criteria:** *Analyze common roles and typical responsibilities of a business.*

**Measurement Criteria:** *Explain the major competitive challenges faced by a business.*

**Performance Element:** Use organizational charts to analyze the workplace operations of a business

**Measurement Criteria:** *Identify mission, organizational goals and objectives of a business.*

**Measurement Criteria:** *Understand the components of a business plan.*

**Measurement Criteria:** *Understand the components of a business plan.*

**Statement:** *Use resources to manage and improve organizational systems.*

**Performance Element:** Apply good customer service skills to improve customer relationships.

**Measurement Criteria:** *Identify needs and requirements of internal and external customers.*

**Measurement Criteria:** *Handle customer problems and complaints.*

**Performance Element:** Explain how planning and budgeting are used to accomplish organizational goals and objectives.

**Measurement Criteria:** *Explain how work plans and budgets are used to allocate people and resources effectively.*

**Measurement Criteria:** *Identify reports used to track performance and resources and explain how they are used.*

**Measurement Criteria:** *Explain how plans and budgets are revised to meet goals and objectives.*

**Performance Element:** Explain how planning is used to improve overall organizational performance.

**Measurement Criteria:** *Identify and describe most critical performance problems that businesses typically face.*

**Measurement Criteria:** *Describe how improvements are identified.*

**Measurement Criteria:** *Use structured problem-solving process to develop improvements*

## Cluster Knowledge and Skill Statement

### Safety, Health, and Environmental

**Statement:** *Assess workplace conditions to maintain safe and healthful working conditions.*

**Performance Element:** **Inspect workplace conditions to identify individual roles in safety, health and/or environmental situation.**

**Measurement Criteria:** *Describe the individual role as it relates to causes of accidents.*

**Measurement Criteria:** *Describe the individual role in identifying dangers in the workplace.*

**Measurement Criteria:** *Describe the workplace environment as it relates to an employee in a given situation.*

**Performance Element:** **Apply knowledge of safety, health and environmental concerns to identify potential hazards.**

**Measurement Criteria:** *List common causes of accidents.*

**Measurement Criteria:** *Explain the dangers in the workplace.*

**Measurement Criteria:** *Evaluate the workplace environment of an employee in a given situation.*

**Performance Element:** **Acquire knowledge of federal and state health and safety regulations to support a safe working environment**

**Measurement Criteria:** *Identify applicable regulations.*

**Measurement Criteria:** *Recognize penalties for noncompliance with the regulations.*

**Measurement Criteria:** *Describe procedures for reporting noncompliance with regulations.*

**Statement:** *Assess hazards, ergonomics, and surface safety in business environment to follow safety procedures and respond to emergency plan.*

**Performance Element:** **Examine workplace to identify and describe hazards.**

**Measurement Criteria:** *Define safety hazards.*

**Measurement Criteria:** *Identify safety hazards in given situations.*

**Measurement Criteria:** *Recommend corrective action plan for safety hazards.*

**Performance Element:** **Examine facilities and equipment to identify and describe the principles of ergonomics.**

**Measurement Criteria:** *Define ergonomics.*

**Measurement Criteria:** *List principles of ergonomics.*

**Measurement Criteria:** *Recommend action plan for applying ergonomics in given situation.*

**Measurement Criteria:** *Evaluate the problems of poor ergonomics.*

**Performance Element:** **Inspect floors and movement areas to identify surface safety conditions that exist in businesses.**

**Measurement Criteria:** *Identify OSHA standards for working surfaces.*

**Measurement Criteria:** *Identify common cause of workplace, slips, trips, and falls.*

**Measurement Criteria:** *Recommend protective measure to avoid slips, trips, and falls.*

**Statement:** *Identify, safeguard and eliminate causes of combustible materials, fires and emergencies to establish a fire-safe working environment.*

**Performance Element:** **Safeguard and eliminate cause of combustible materials and fires to promote personnel safety.**

**Measurement Criteria:** *Describe the classifications of flammable and combustible*

## Cluster Knowledge and Skill Statement

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*liquids.*

**Measurement Criteria:** *Identify and discuss safe practices for using, storing, and disposing of flammables and combustibles.*

**Measurement Criteria:** *Describe and identify fire hazards and fire reporting procedures.*

**Performance Element: Plan specific procedures to apply to emergency situations.**

**Measurement Criteria:** *Identify emergency exits and rally points.*

**Measurement Criteria:** *Identify and describe bloodborne pathogens standards.*

**Measurement Criteria:** *Describe safe practices to use in giving assistance to others who may be injured.*

**Measurement Criteria:** *Compare differences in procedures for each type of emergency.*

## Cluster Knowledge and Skill Statement

### Leadership and Teamwork

**Statement:** *Identify characteristics of the leadership role to perform leadership activities.*

**Performance Element:** Exhibit trustworthy behavior to develop successful business relationships.

**Measurement Criteria:** *Define integrity in the workplace*

**Measurement Criteria:** *Make the right decisions in ethical challenges.*

**Performance Element:** Understand the necessary attributes to exercise leadership in business.

**Measurement Criteria:** *Describe common behaviors of typical leaders within an organization.*

**Measurement Criteria:** *Explain key performance measures for typical leaders within an organization.*

**Measurement Criteria:** *Maintain professional competence by keeping current in the business field.*

**Statement:** *Work as a team to develop and implement company vision and goals.*

**Performance Element:** Understand the need for a common vision or mission statement to focus company energies.

**Measurement Criteria:** *Involve all stakeholders in developing a common vision or mission statement.*

**Measurement Criteria:** *Explain the components of a corporate mission statement.*

**Measurement Criteria:** *Explain methods of gaining buy-in from all members and future members of the organization.*

**Performance Element:** Develop goals and objectives to provide clear directions for all personnel.

**Measurement Criteria:** *Translate corporate mission statement with qualified objectives.*

**Measurement Criteria:** *Explain how corporate goals and objectives support mission statement.*

**Performance Element:** Implement as a team departmental goals and objectives to obtain personnel participation in the planning process.

**Measurement Criteria:** *Explain methods for implementing departmental goals and objectives.*

**Measurement Criteria:** *Compare departmental goals and objectives with company goals and objectives.*

**Statement:** *Collaborate with others to accomplish business tasks.*

**Performance Element:** Provide leadership to group or team to motivate personnel.

**Measurement Criteria:** *Motivate co-workers to achieve goals.*

**Measurement Criteria:** *Distribute work fairly and responsibly.*

**Measurement Criteria:** *Take ownership for work.*

**Performance Element:** Work with others to achieve tasks.

**Measurement Criteria:** *Treat people with respect.*

**Measurement Criteria:** *Display commitment and positive attitude.*

**Measurement Criteria:** *Assist co-workers in completing the job.*

**Measurement Criteria:** *Adapt to changes in work activities.*

## Cluster Knowledge and Skill Statement

### Ethics and Legal Responsibilities

**Statement:** *Apply business laws and regulations to business situations.*

**Performance Element:** **Apply laws and regulations to personnel situations.**

**Measurement Criteria:** *Explain major points and purpose of laws and regulations concerning sexual harassment, gender equity and disabilities.*

**Measurement Criteria:** *Identify resources that provide specific information regarding personnel laws and regulations.*

**Measurement Criteria:** *Apply major laws affected in given scenarios/situations.*

**Performance Element:** **Apply information about contracts to specific business situations.**

**Measurement Criteria:** *Identify major elements of a business contract.*

**Measurement Criteria:** *Compare contracts for differences.*

**Measurement Criteria:** *Develop a business contract for a given situation.*

**Performance Element:** **Identify resources to keep business related laws and regulations current.**

**Measurement Criteria:** *Identify types of resources that provide information on laws and regulations.*

**Measurement Criteria:** *Analyze company procedures for compliance with laws and regulations.*

**Measurement Criteria:** *Evaluate a list of resources that would update and comply with laws and regulations.*

**Performance Element:** **Apply knowledge of copyright laws to business situations.**

**Measurement Criteria:** *Analyze and interpret copyright laws and regulations.*

**Measurement Criteria:** *Demonstrate ability to apply copyright laws to specific situations.*

**Measurement Criteria:** *Identify procedures to avoid violation of copyright laws.*

**Statement:** *Exhibit ethical conduct to business negotiations and decisions.*

**Performance Element:** **Use ethical business practices to conduct business in a legal and responsible manner.**

**Measurement Criteria:** *Explain difference between an ethical business practice and legal responsibility.*

**Measurement Criteria:** *Identify ethical and legal issues in given business situations.*

**Measurement Criteria:** *Identify and explain alternative strategies that address unethical and illegal business actions.*

**Performance Element:** **Apply ethical principles to decision making related to clients, customers and fellow-workers.**

**Measurement Criteria:** *Demonstrate responsibility for actions.*

**Measurement Criteria:** *Exhibit respect for others.*

**Measurement Criteria:** *Assume responsibility for decisions and actions.*

**Performance Element:** **Apply professional conduct to business situations.**

**Measurement Criteria:** *Interpret company policies and procedures for professional conduct.*

**Measurement Criteria:** *Explain difference in personal and professional conduct.*

**Measurement Criteria:** *Apply professional conduct in different business situations.*

**Measurement Criteria:** *Identify strategies for improving professional conduct in specific business situations.*

## Cluster Knowledge and Skill Statement

### Employability and Career Development

**Statement:** *Exhibit positive work behaviors and personal qualities to enhance the work environment.*

**Performance Element:** Demonstrate self-discipline, self-worth, positive attitude, and integrity to improve the work place.

**Measurement Criteria:** *Demonstrate regular attendance.*

**Measurement Criteria:** *Exhibit pride in work.*

**Measurement Criteria:** *Follow company dress and appearance standards.*

**Measurement Criteria:** *Demonstrate leadership and teamwork.*

**Measurement Criteria:** *Exercise honesty in the workplace setting.*

**Performance Element:** Demonstrate flexibility and willingness to learn new knowledge and skills to increase job efficiency.

**Measurement Criteria:** *Exhibit ability to handle stress.*

**Measurement Criteria:** *Display initiative.*

**Measurement Criteria:** *Participate in company orientation and training.*

**Measurement Criteria:** *Identify strategies that will impact efficiency of job.*

**Performance Element:** Exhibit commitment to the organization to achieve company goals.

**Measurement Criteria:** *Follow established rules, regulations and policies.*

**Measurement Criteria:** *Explain employer/management responsibilities.*

**Measurement Criteria:** *Demonstrate cost effectiveness.*

**Measurement Criteria:** *Demonstrate time management.*

**Statement:** *Identify and explore career opportunities to create a professional growth and development plan.*

**Performance Element:** Utilize multiple resources to locate and identify career opportunities for growth in business, management and administration.

**Measurement Criteria:** *Locate and interpret career information for career opportunities.*

**Measurement Criteria:** *Identify job requirements for at least three career opportunities.*

**Measurement Criteria:** *Identify educational and credentialing requirements for at least three career opportunities.*

**Performance Element:** Analyze interests and aptitudes to determine potential careers in business, management and administration.

**Measurement Criteria:** *Identify personal interests and aptitudes.*

**Measurement Criteria:** *Identify job requirements and characteristics for each career of interest.*

**Measurement Criteria:** *Compare personal interests and aptitudes with job requirements and characteristics.*

**Performance Element:** Identify career goals and objectives to develop career plan.

**Measurement Criteria:** *Compare career information with personal interests.*

**Measurement Criteria:** *Identify goals and objective for reaching and advancing in career.*

**Measurement Criteria:** *Develop a list of suggested strategies for reaching career objectives.*

**Statement:** *Apply job seeking skills to seek, evaluate, apply for and accept employment.*

**Performance Element:** Utilize multiple resources to locate job opportunities in

## Cluster Knowledge and Skill Statement

**business, management and administration utilizing multiple resources.**

**Measurement Criteria:** *Identify resources for finding employment.*

**Measurement Criteria:** *Analyze job requirements with personal qualifications, interests, and aptitudes.*

**Measurement Criteria:** *Select job opportunity that matches personal qualifications, interests, and aptitudes.*

**Performance Element: Apply organizational and writing skills to prepare a resume, job application letter and job application.**

**Measurement Criteria:** *Develop a personal resume for specific job opening.*

**Measurement Criteria:** *Write letter of application for specific job opening.*

**Measurement Criteria:** *Complete job application forms provided by employer.*

**Performance Element: Exhibit verbal and nonverbal skills to respond appropriately in job interview.**

**Measurement Criteria:** *Exhibit acceptable dress for interview.*

**Measurement Criteria:** *Demonstrate professional conduct before, during and after interview.*

**Measurement Criteria:** *Communicate your qualifications and interests clearly and concisely.*

**Measurement Criteria:** *Write follow-up letter after interview.*

**Performance Element: Accept or reject employment.**

**Measurement Criteria:** *Evaluate and compare job advantages and disadvantages.*

**Measurement Criteria:** *Write acceptance or rejection letter.*

**Measurement Criteria:** *Complete employment forms upon acceptance.*

**Statement: Exhibit an understanding of written organizational policies, rules and procedures to optimize employee performance.**

**Performance Element: Locate information on organizational policies in handbooks and manuals.**

**Measurement Criteria:** *Identify the contents of various organizational publications.*

**Measurement Criteria:** *Determine the appropriate document for specific job responsibilities and work assignments.*

**Performance Element: Apply organizational policies and rules to a specific work situation.**

**Measurement Criteria:** *Locate and identify specific organizational policy, rule or procedure to assist with a given situation.*

**Measurement Criteria:** *Apply a specific organizational policy, rule or procedure to a given situation.*

## Cluster Knowledge and Skill Statement

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### Technical Skills

**Statement:** *Use effective communication skills for all modes of business*

**Performance Element:** Use multi-media platforms as communication tools to receive and deliver information.

**Measurement Criteria:** *Use e-mail correctly and appropriately.*

**Measurement Criteria:** *Exhibit the ability to use a facsimile.*

**Measurement Criteria:** *Exhibit the correct use of all phone and web-based communication systems (cell phones, multi-line phones, etc.*

**Measurement Criteria:** *Exhibit the use of hand-held computers.*

**Measurement Criteria:** *Deliver and receive information via the Internet (in accordance with company's e-business infrastructure).*

**Measurement Criteria:** *Use data projectors or other presentation tools.*



## **Section III – Pathway Knowledge and Skills**



## PATHWAY: Management

### Pathway Topic: Planning/Organizing/Evaluating

**Pathway KS Statement: Develop and implement short and long term strategic plans to manage growth, profit and goals within a specific market segment.**

**Performance Element: Complete effective business plans to meet varied business needs.**

**Measurement Criteria:** *Create a company vision, mission and goals.*

**Measurement Criteria:** *Create short and/or long-term strategic plans*

**Measurement Criteria:** *Create the elements of a strategic plan.*

**Performance Element: Develop and implement annual performance-based operating plans to manage long-range company goals.**

**Measurement Criteria:** *Create the elements of an annual operating plan.*

**Measurement Criteria:** *Create annual operating plans.*

**Measurement Criteria:** *Develop technical management sections and work break-down structures; schedule types (Gantt charts, PERT charts, etc.) and priorities; and cost management sections and profit projections for annual operating plan.*

**Performance Element: Develop and implement business plans to serve division and department subjects.**

**Measurement Criteria:** *Develop and implement financial/budgeting plans.*

**Measurement Criteria:** *Develop and implement legal/contractual and/or risk management plans.*

**Measurement Criteria:** *Develop and implement organizational charts and staffing/human resource plans.*

**Measurement Criteria:** *Develop and implement inventory control plans and/or quality control/quality assurance plans.*

**Measurement Criteria:** *Develop and implement project or workload management plans.*

**Pathway KS Statement: Evaluate employee performance to provide timely and appropriate responses to personnel issues.**

**Performance Element: Apply performance standards to evaluate employees.**

**Measurement Criteria:** *Identify and communicate performance standards.*

**Measurement Criteria:** *Identify and communicate policies and procedures for reviewing performance.*

**Measurement Criteria:** *Track performance indicators and develop performance reports.*

**Measurement Criteria:** *Analyze performance reports for their impact upon your responsibility sets.*

**Performance Element: Develop timely responses to employee performance evaluations.**

**Measurement Criteria:** *Provide feedback response on employee's performance.*

**Measurement Criteria:** *Implement performance improvement plans.*

**Measurement Criteria:** *Amend employee work plans to account for performance evaluation results.*

**Measurement Criteria:** *Provide strategies for rewarding employee performance.*

## Pathway Topic: Planning/Organizing/Evaluating

**Pathway KS Statement: Organize the various business services to address all company components.**

**Performance Element: Analyze the individual role and unit's responsibility to the business.**

**Measurement Criteria:** *Identify the various departments work group organization and individuals, as well as their interrelationships, within a company's organizational structure.*

**Measurement Criteria:** *Identify the various employees responsible for the management of company information (including their responsibilities).*

**Measurement Criteria:** *Demonstrate the ability to describe and adopt the appropriate organizational tools and systems for the unit and the unit's responsibility set.*

**Performance Element: Develop policies and procedures to provide support for the organization.**

**Measurement Criteria:** *Review current policies and procedures.*

**Measurement Criteria:** *Identify areas where policies and procedures must be added or revised.*

**Measurement Criteria:** *Develop a company policy and procedures manual.*

**Performance Element: Organize business components to assure quality products/services are delivered on time.**

**Measurement Criteria:** *Organize data/information/research.*

**Measurement Criteria:** *Organize people (human resources).*

**Measurement Criteria:** *Organize all other resources.*

**Measurement Criteria:** *Organize activities to meet time lines.*

**Measurement Criteria:** *Organize production or delivery of products/services.*

## Pathway Topic: Communicating

**Pathway KS Statement: Assume appropriate roles to create, deliver, receive and manage business communications in the workplace.**

**Performance Element: Identify audience and create communications support statistics for internal and external audiences.**

**Measurement Criteria:** *Identify the audience and determine the type of communication to use for that audience.*

**Measurement Criteria:** *Gather the data to be included in the communication for the specific external audience.*

**Measurement Criteria:** *Prepare the communication in easy to understand format for intended audience.*

**Measurement Criteria:** *Choose the appropriate mode of communication.*

**Performance Element: Assume the necessary role to perform the responsibilities of delivering a message.**

**Measurement Criteria:** *Adopt the appropriate communicator role (trainer, presenter, counselor, etc.)*

**Measurement Criteria:** *Listen to and value the response of the audience to determine the effectiveness of the communication and appropriate follow-up actions.*

## Pathway Topic: Communicating

**Measurement Criteria:** *Perform any required follow-up actions (respond to questions, document the communication session, etc.)*

**Measurement Criteria:** *Use appropriate visuals, media, body language, and handouts.*

**Measurement Criteria:** *Document those verbal communications for which a record may be required.*

**Performance Element:** **Assume the necessary role to perform the responsibilities of receiving a message.**

**Measurement Criteria:** *Adopt the appropriate receiver role (listener, participant, observer, etc.)*

**Measurement Criteria:** *Provide feedback on the communication received and communicate any questions, need for clarifications, or follow-up requests that you may have for the communicator.*

**Measurement Criteria:** *Perform any required follow-up actions (perform assigned tasks, send notes of appreciation, et.)*

**Performance Element:** **Manage the broad scope of business communications to process, document, and store information efficiently and appropriately.**

**Measurement Criteria:** *Develop and implement documentation processes and procedures.*

**Measurement Criteria:** *Make records of verbal and written communications in accord with your company's documentation processes and procedures.*

**Measurement Criteria:** *Utilize a document management or information storage system (may require an individual to know how to interact with the manager of information systems).*

**Measurement Criteria:** *Recall and utilize document records.*

**Measurement Criteria:** *Store communication for future reference or input into database, as required.*

**Performance Element:** **Prepare appropriate materials to reply to inquiries that required a considered response.**

**Measurement Criteria:** *Understand and communicate the purpose of the reply.*

**Measurement Criteria:** *Use the appropriate grammar, tone, style.*

**Measurement Criteria:** *Perform any required other activities (amend the file record, interact with legal, etc.)*

## Pathway Topic: Supervising/Directing and Motivating/Leading

**Pathway KS Statement:** **Motivate and supervise personnel to achieve completion of projects and company goals.**

**Performance Element:** **Exhibit behaviors and actions to effectively motivate and lead people.**

**Measurement Criteria:** *Identify and describe strategies that provide performance incentives.*

**Measurement Criteria:** *Motivate and lead employees toward innovative ideas and/or critical thinking ability.*

**Measurement Criteria:** *Motivate and lead employees toward continuous learning and/or professional development.*

**Performance Element:** **Exhibit behaviors and actions to effectively motivate and lead**

## Pathway Topic: Supervising/Directing and Motivating/Leading

change.

**Measurement Criteria:** *Identify and describe reasons for macro- and micro-economic change (change in the community, industry, internal and external operations).*

**Measurement Criteria:** *Motivate and lead employees toward macro- and micro-economic change (change in the community, industry, internal and external operations).*

**Performance Element:** **Exhibit behaviors and actions to effectively motivate and promote the use of teamwork in the workplace.**

**Measurement Criteria:** *Describe the interrelationships, interactions, and communications required for teaming.*

**Measurement Criteria:** *Develop and implement team operating procedures.*

**Measurement Criteria:** *Describe and be able to adopt the tools/resources that facilitate working in team (WebX, Groupware, etc.)*

**Measurement Criteria:** *Exhibit the ability to be flexible and allow for adaptations in work that team tasking requires.*

**Measurement Criteria:** *Structure evaluation mechanisms to promote teamwork.*

**Pathway KS Statement:** **Direct and supervise personnel to complete company goals and projects.**

**Performance Element:** **Exhibit the actions and behaviors most effective for supervising and directing the financial resources.**

**Measurement Criteria:** *Demonstrate the ability to supervise and direct assets and liabilities..*

**Measurement Criteria:** *Identify changes between assets and liabilities that impact the company's equity(s).*

**Measurement Criteria:** *Demonstrate the ability to supervise and direct relationships with financial services firms and other providers/investors.*

**Performance Element:** **Exhibit the actions and behaviors most effective for supervising and directing the human resources assigned to you for a company.**

**Measurement Criteria:** *Establish and communicate workplace ethics and/or code(s) of conduct statements.*

**Measurement Criteria:** *Establish and communicate corporate values.*

**Measurement Criteria:** *Manage and mediate interpersonal conflict within the company organizational structure.*

**Measurement Criteria:** *Demonstrate the ability to supervise and direct relationships with specific internal and external company constituents (employees, employee teams/ work groups, upper management, board members and stockholders and other company-wide relationships.)*

**Measurement Criteria:** *Identify and describe difficult personalities and describe strategies for dealing with those appropriately.*

**Measurement Criteria:** *Identify and describe the impact of diversity in the workplace and demonstrate the ability to adopt strategies for promoting workplace harmony and company productivity .*

**Performance Element:** **Exhibit the actions and behaviors most effective for**

## Pathway Topic: Supervising/Directing and Motivating/Leading

supervising and directing the external relationships in your area of responsibility.

**Measurement Criteria:** *Exhibit actions and behaviors to supervise and direct risk mitigation activities and other legal issues.*

**Measurement Criteria:** *Demonstrate the ability to supervise and manage quality control issues.*

**Measurement Criteria:** *Demonstrate the ability to motivate and lead specific external business constituents (clients, stockholders and board members, suppliers and service providers, government or regulatory associations, media, and the community.)*

**Performance Element:** Exhibit the actions and behaviors most effective to supervise and direct the knowledge/information resources.

**Measurement Criteria:** *Supervise and direct IT resources.*

**Measurement Criteria:** *Supervise and direct R and D resources.*

**Measurement Criteria:** *Supervise and direct contractual obligations.*

**Performance Element:** Exhibit the actions and behaviors most effective for supervising and directing company tangibles.

**Measurement Criteria:** *Supervise and direct facilities, equipment, and supply chains.*

**Measurement Criteria:** *Supervise and direct company products and/or services.*

**Measurement Criteria:** *Supervise and direct company inventory and/or intellectual property.*

**Performance Element:** Exhibit the actions and behaviors most effective for supervising and directing company intangibles.

**Measurement Criteria:** *Manage and/or positively impact the company's goodwill.*

**Measurement Criteria:** *Manage and/or positively impact the company's image.*

## Pathway Topic: Maintaining Facilities, Equipment and Supplies

**Pathway KS Statement:** *Develop and implement plans and standard operating procedures to assure maintenance of facilities, equipment and supplies.*

**Performance Element:** Describe the types and requirements of all company facilities, equipment and supply chains to manage physical properties of company structure.

**Measurement Criteria:** *Describe the history of all company facilities, equipment and supply chains.*

**Measurement Criteria:** *Identify and maintain records of the physical layout of company facilities.*

**Measurement Criteria:** *Identify and maintain records of all company workstations and spaces including equipment.*

**Measurement Criteria:** *Identify and maintain records of facility safety, security, and emergency management requirements. (This includes healthy workplace environment requirements, facility housekeeping and sanitation requirements, etc.)*

**Measurement Criteria:** *Identify and maintain records of HVAC, utility, other building systems and physical plant requirements. Include external facilities such as parking lots, rights of way, sidewalks, lighting and groundskeeping.*

**Performance Element:** Manage the present day-to-day operations and maintenance

## Pathway Topic: Maintaining Facilities, Equipment and Supplies

of all company facilities, equipment and supply chains to assure physical integrity of all systems.

**Measurement Criteria:** *Prepare operations and maintenance plans for the physical layout of all company facilities including workstations, safety and security, housekeeping and sanitation, IT infrastructure, utility systems, and external facilities.*

**Measurement Criteria:** *Prepare operations and maintenance plans for all equipment.*

**Measurement Criteria:** *Prepare a management plan for the day to day operations and maintenance of all company supply chains.*

**Measurement Criteria:** *Hire personnel and/or subcontractors and/or issue purchase orders for maintenance of physical facilities and equipment.*

**Measurement Criteria:** *Utilize best-value procurement policies in accord with any and all regulatory and/or company policies and procedures (including e-business technologies, as appropriate).*

**Performance Element: Determine adjustments needed and plan for future growth in facilities, equipment and supply chains to enable profitable operation and growth.**

**Measurement Criteria:** *Analyze growth projections and determine the impact of future growth on the facilities, equipment and supply chain.*

**Measurement Criteria:** *Analyze growth projections and determine the impact of future growth on the company profit margin.*

**Measurement Criteria:** *Prepare technical and cost management plans for the physical facilities, acquisition of new equipment, and an alternative, best-value supply chain.*

**Measurement Criteria:** *Develop a plan for managing the budget for facilities, equipment and supply chain, including lease versus purchase, purchase versus repair.*

**Measurement Criteria:** *Explain how you would make economic price adjustments to stay within the company profit margin and continue to manage facilities, equipment and supply chains.*

## Pathway Topic: Monitoring Progress

**Pathway KS Statement: Utilize performance standards to monitor progress of personnel, finance and other functional areas.**

**Performance Element: Identify and communicate performance standards and operating policies and procedures such as ISO to personnel.**

**Measurement Criteria:** *Determine elements desired for performance standards.*

**Measurement Criteria:** *Develop policies and procedures for reviewing performance.*

**Measurement Criteria:** *Prepare written instructions to accompany procedures.*

**Performance Element: Evaluate results of performance standards to develop an effective tracking system.**

**Measurement Criteria:** *Track performance indicators according to schedule and standard.*

**Measurement Criteria:** *Evaluate tracking data and develop performance reports.*

**Performance Element: Analyze performance reports and make adjustments to recognize successes and identify shortfalls.**

**Measurement Criteria:**

## Pathway Topic: Monitoring Progress

*Analyze performance reports for their impact upon assigned responsibility.*

**Measurement Criteria:** *Develop appropriate responses to performance shortfalls.*

**Measurement Criteria:** *Implement performance improvement plans.*

**Measurement Criteria:** *Amend annual operating plans to account for evaluation results.*

## Pathway Topic: Facilitating Change

**Pathway KS Statement:** *Evaluate opportunities to determine potential company changes and implement strategies for catalyzing and guiding changes.*

**Performance Element:** *Evaluate opportunities to determine potential company changes.*

**Measurement Criteria:** *Identify performance standards within the company that impact bottom line and/or drive the need for change.*

**Measurement Criteria:** *Review performance reports to locate areas that indicate the need to change organizational process or performance.*

**Measurement Criteria:** *Compile areas needing attention and identify action to be taken.*

**Measurement Criteria:** *Inform others of changes, purpose and their role.*

**Measurement Criteria:** *Evaluate actions to be taken and make decision to proceed or abandon idea.*

**Performance Element:** *Implement the improvement process to guide the change.*

**Measurement Criteria:** *Document and evaluate input and outcomes throughout the process.*

**Measurement Criteria:** *Roll-out full scale implementation of the change.*

**Measurement Criteria:** *Evaluate the improvement process (cost/benefit analysis, impact analysis, etc.).*

## PATHWAY: Business Financial Management & Accounting

### Pathway Topic: Computational Skills

**Pathway KS Statement:** *Apply computational skills in written documents.*

**Performance Element:** Observe policies and regulations when performing calculations for a given situation.

**Measurement Criteria:** *Identify the need to follow a policy or regulation.*

**Measurement Criteria:** *Identify appropriate calculation methods for each situation.*

**Measurement Criteria:** *Perform correct calculations for each situation.*

**Performance Element:** Calculate and enter data for a given situation on appropriate forms or reports.

**Measurement Criteria:** *Identify appropriate forms and reports for each situation.*

**Measurement Criteria:** *Input raw data into forms or reports.*

**Measurement Criteria:** *Apply the appropriate calculation method: add, subtract, multiply, divide, compare, present value, compound values, etc..*

**Performance Element:** Re-check computations in written documents for accuracy and quality.

**Measurement Criteria:** *Identify the most common accounting mistakes.*

**Measurement Criteria:** *Use appropriate calculation methods to re-check results.*

**Pathway KS Statement:** *Apply computational skills to computerized financial documents.*

**Performance Element:** Operate appropriate financial software to generate useable data.

**Measurement Criteria:** *Identify the most common features of financial software.*

**Measurement Criteria:** *Explain the most critical functions of financial software.*

**Measurement Criteria:** *Utilize the Help feature in the financial software.*

**Performance Element:** Operate electronic spreadsheet software to create formulas and reports.

**Measurement Criteria:** *Create formulas for mathematical computations.*

**Measurement Criteria:** *Create a report based on previous or current mathematical computations.*

**Measurement Criteria:** *Print a report.*

### Pathway Topic: Organizational Skills

**Pathway KS Statement:** *Utilize organizational skills to perform accounting and financial operations.*

**Performance Element:** Record and schedule appointments and calendars to manage functions.

**Measurement Criteria:** *Maintain manual and electronic calendars.*

**Measurement Criteria:** *Record/schedule appointments.*

**Measurement Criteria:** *Synchronize all calendars.*

**Performance Element:** Organize work priorities to assure deadlines will be met.

**Measurement Criteria:** *Establish "to do" lists with scheduled completion dates.*

**Measurement Criteria:** *Schedule work priorities to meet due dates.*

## Pathway Topic: Organizational Skills

**Measurement Criteria:** *Organize work in logical sequence.*

**Measurement Criteria:** *Meet deadlines.*

**Performance Element:** **Organize documents, forms and manuals to maintain orderly flow of work.**

**Measurement Criteria:** *Identify documents, forms, and manuals needed.*

**Measurement Criteria:** *Develop written publications and/or instructional manuals.*

**Measurement Criteria:** *Prepare flow charts for forms and documents.*

**Measurement Criteria:** *Use PERT Charts and other tools to maintain orderly flow of work.*

## Pathway Topic: Policies and Regulations

**Pathway KS Statement:** **Apply federal, state and local laws, rules and regulations to guide storage and retention of financial records.**

**Performance Element:** **Comply with federal, state and local rules, procedures, laws and regulations for storage and retention of financial records and files.**

**Measurement Criteria:** *Interpret guidance for storage requirements.*

**Measurement Criteria:** *Keep all federal, state, and local requirements updated.*

**Measurement Criteria:** *Provide necessary security for records and files.*

**Performance Element:** **Adapt accounting and record keeping functions to current computerized systems.**

**Measurement Criteria:** *Use database applications.*

**Measurement Criteria:** *Use financial systems.*

**Measurement Criteria:** *Use appropriate electronic files management software.*

**Measurement Criteria:** *Develop auditing system to insure accounting and financial records are correct.*

**Performance Element:** **Establish backup procedures for maintaining electronic records.**

**Measurement Criteria:** *Use industry appropriate backup methods for electronic records/files.*

**Measurement Criteria:** *Insure backup procedures are scheduled and completed.*

**Measurement Criteria:** *Maintain backup resources in appropriately determined locations.*

**Pathway KS Statement:** **Identify, apply and keep current with laws and regulations that affect financial and accounting practices.**

**Performance Element:** **Understand basic financial laws and regulations as applied to financial and accounting practices.**

**Measurement Criteria:** *Explain major points and purposes of laws and regulations concerning financial transactions, security trading, basic accounting principles (GAAP/GAA) and taxation laws.*

**Measurement Criteria:** *Identify resources that provide specific information regarding financial laws, policies and regulations.*

**Measurement Criteria:** *Identify major regulations and policies affecting select financial industries.*

**Measurement Criteria:** *Explain penalties and consequences for noncompliance with*

## Pathway Topic: Policies and Regulations

*laws, policies, and regulations.*

**Performance Element: Examine the purposes of financial laws, policies and regulations to apply them to a given situation.**

**Measurement Criteria:** *Explain how to apply financial laws, policies, and regulations to given situations.*

**Measurement Criteria:** *Explain how company and industry policies affect industry practices.*

**Measurement Criteria:** *Analyze company and individual procedures for compliance with financial laws, policies, and regulations.*

**Measurement Criteria:** *Identify major instances of noncompliance with financial laws, policies, and regulations.*

**Performance Element: Maintain knowledge of current financial laws, policies and regulations to assure continued compliance in financial and accounting practices.**

**Measurement Criteria:** *Identify types of resources to provide information on financial laws, policies, and regulations.*

**Measurement Criteria:** *Evaluate a list of resources that would provide updates to financial laws, policies, and regulations.*

## Pathway Topic: Analyze and Interpret Data

**Pathway KS Statement: Analyze and interpret financial data to produce accurate reports.**

**Performance Element: Understand the purpose of financial statements.**

**Measurement Criteria:** *Describe the different types of financial statements.*

**Measurement Criteria:** *Explain the purpose of a financial statement.*

**Measurement Criteria:** *Compare the differences in financial statements.*

**Performance Element: Analyze financial statements to verify information.**

**Measurement Criteria:** *Identify critical data.*

**Measurement Criteria:** *Identify relative timelines.*

**Measurement Criteria:** *Determine trends.*

**Measurement Criteria:** *Interpret trend indicators.*

**Measurement Criteria:** *Compare ratios/standards*

**Measurement Criteria:** *Identify causes.*

**Measurement Criteria:** *Identify problems or areas of concern.*

**Measurement Criteria:** *Assess potential impacts.*

**Performance Element: Interpret financial data for planning purposes.**

**Measurement Criteria:** *Identify trends*

**Measurement Criteria:** *Review revenues*

**Measurement Criteria:** *Review expenditures.*

**Measurement Criteria:** *Determine priorities.*

**Measurement Criteria:** *Investigate abnormalities.*

**Measurement Criteria:** *Report conclusions based on data.*

## Pathway Topic: Accounting

**Pathway KS Statement: Examine elements of an accounting system to**

## Pathway Topic: Accounting

### **acquire skills in applying good accounting practices.**

**Performance Element:** Evaluate assets and liabilities to show their functions in an accounting system.

**Measurement Criteria:** *Identify the parts of the accounting equation.*

**Measurement Criteria:** *Classify accounts as assets, liabilities, and owner's equity.*

### **Pathway KS Statement: Record business transactions to track business activities.**

**Performance Element:** Create a chart of accounts to show the variety of accounts activity in a system.

**Measurement Criteria:** *Identify asset accounts.*

**Measurement Criteria:** *Identify liability accounts.*

**Measurement Criteria:** *Open accounts in a general ledger.*

**Measurement Criteria:** *Open accounts receivable ledger.*

**Measurement Criteria:** *Open accounts payable ledger.*

**Performance Element:** Record transactions.

**Measurement Criteria:** *Journalize transactions in appropriate journals.*

**Measurement Criteria:** *Post from journals to ledgers.*

**Measurement Criteria:** *Prepare a trial balance.*

**Measurement Criteria:** *Journalize and post adjusting and closing entries.*

**Measurement Criteria:** *Close the general ledger.*

### **Pathway KS Statement: Collect financial data to report required financial information.**

**Performance Element:** Assemble appropriate accounting elements to prepare financial statements.

**Measurement Criteria:** *Prepare a balance sheet.*

**Measurement Criteria:** *Prepare an income statement.*

**Measurement Criteria:** *Prepare a cash flow statement.*

## **PATHWAY: Human Resources**

### **Pathway Topic: Compensation and Benefits Administration**

**Pathway KS Statement: Manage an organization's benefits program to service employees with options and benefits.**

**Performance Element: Communicate employee benefits options to employees in given company.**

**Measurement Criteria:** *Explain employee benefits.*

**Measurement Criteria:** *Create/maintain employee benefits communication pieces.*

**Measurement Criteria:** *Disseminate written communications (e.g. newsletters, pamphlets).*

**Measurement Criteria:** *Inform employees of updated benefit information.*

**Measurement Criteria:** *Conduct information/training sessions regarding benefits.*

**Performance Element: Conduct a review and update employee benefits program for a given company.**

**Measurement Criteria:** *Research benefit providers and options.*

**Measurement Criteria:** *Conduct employee needs analysis.*

**Measurement Criteria:** *Determine feasibility of benefit options.*

**Measurement Criteria:** *Ensure benefit programs contribute to organization's total compensations plans and goals.*

**Performance Element: Maintain employee benefit records for employees in a given company.**

**Measurement Criteria:** *Record employee information.*

**Measurement Criteria:** *Verify employee benefit documents for accuracy.*

**Measurement Criteria:** *Provide security for and confidentiality of employee records.*

**Pathway KS Statement: Coordinate and administer a wage and salary program for the company.**

**Performance Element: Develop a competitive direct and indirect pay/compensation plan for the company.**

**Measurement Criteria:** *Analyze prevailing wage rates.*

**Measurement Criteria:** *Evaluate the cost effectiveness for the organization.*

**Measurement Criteria:** *Develop salary schedules (e.g. ranking jobs).*

**Measurement Criteria:** *Conduct wage/salary surveys.*

**Measurement Criteria:** *Assist in planning for wage increases.*

**Measurement Criteria:** *Evaluate pay structure and ensure fit with organization's strategic objectives and total compensation plans.*

**Performance Element: Maintain employee time and wage records for the company.**

**Measurement Criteria:** *Verify time and wage documents.*

**Measurement Criteria:** *Create a payroll schedule.*

**Measurement Criteria:** *Ensure timely payroll distribution.*

**Measurement Criteria:** *Follow applicable federal, state and local laws.*

**Performance Element: Verify that applicable files fulfill regulations in order to represent the employer at unemployment compensation hearings.**

**Measurement Criteria:** *Research unemployment compensation regulations.*

## Pathway Topic: Compensation and Benefits Administration

**Measurement Criteria:** Compare and contrast current case to the applicable regulations.

**Measurement Criteria:** Develop materials to present during hearing.

## Pathway Topic: Training and Development

**Pathway KS Statement:** Plan, develop and conduct training programs for a company.

**Performance Element:** Prepare and facilitate an orientation program for new employees.

**Measurement Criteria:** Locate and organize materials for orientation program.

**Measurement Criteria:** Inform employees of benefits, compensation and personnel policies.

**Measurement Criteria:** Ensure completion of appropriate personnel forms.

**Performance Element:** Prepare on-going training and development activities for employees.

**Measurement Criteria:** Assess current and future training needs.

**Measurement Criteria:** Evaluate past training activities for effectiveness.

**Measurement Criteria:** Communicate training opportunities to employees.

**Measurement Criteria:** Develop a training budget and obtain approval.

**Performance Element:** Implement training and development activities for employees.

**Measurement Criteria:** Evaluate training materials and methods for instruction.

**Measurement Criteria:** Select instructors to conduct training.

**Measurement Criteria:** Schedule classes for training.

**Measurement Criteria:** Maintain training records.

**Measurement Criteria:** Maintain up-to-date contact information on trainers.

**Pathway KS Statement:** Identify, develop and plan training materials to use in training and developing employees in a company.

**Performance Element:** Organize and maintain a library of training materials for the company.

**Measurement Criteria:** Research and evaluate available resources.

**Measurement Criteria:** Select and purchase training materials.

**Measurement Criteria:** Develop and implement procedures for employee use of materials.

**Performance Element:** Develop training procedures and guides to assist employees in doing their jobs.

**Measurement Criteria:** Confer with managers to determine training needs.

**Measurement Criteria:** Ensure training department is in compliance with all federal, state and local laws.

**Measurement Criteria:** Maintain positive attitude with all employees, contacts and customers.

## Pathway Topic: Recruitment, Retention and Termination of Employees

**Pathway KS Statement:** Develop recruitment plan to obtain qualified employees.

## **Pathway Topic: Recruitment, Retention and Termination of Employees**

**Performance Element: Determine recruitment needs and objectives to obtain qualified employees.**

**Measurement Criteria:** *Analyze current staff and work flow.*

**Measurement Criteria:** *Relate organization's goals to employees needed.*

**Measurement Criteria:** *Assess current employees and external workers available for employment.*

**Performance Element: Publicize job openings to obtain qualified employees.**

**Measurement Criteria:** *Identify target of recruitment efforts.*

**Measurement Criteria:** *Determine appropriate media to use to announce openings.*

**Measurement Criteria:** *Prepare materials for internal and external announcement of openings.*

**Measurement Criteria:** *Ensure compliance with all federal, state and local laws (e.g. EEO, Affirmative Action, Americans with Disabilities).*

### **Pathway KS Statement: Analyze company assessment of personnel needs to select qualified employees for current openings.**

**Performance Element: Establish criteria for determining most qualified candidates for specific personnel need.**

**Measurement Criteria:** *Maintain current job descriptions and requirements.*

**Measurement Criteria:** *Select pre-employment tests and screenings.*

**Measurement Criteria:** *Develop application and interview processes and documents.*

**Measurement Criteria:** *Follow federal, state and local employment laws.*

**Performance Element: Select applicants that match specific personnel needs in a company.**

**Measurement Criteria:** *Review and evaluate applicant qualifications.*

**Measurement Criteria:** *Notify candidates of status.*

**Measurement Criteria:** *Arrange interview details.*

**Measurement Criteria:** *Rank candidates to determine hiring preference.*

### **Pathway KS Statement: Develop separation, termination and transition procedures for processing employee personnel actions.**

**Performance Element: Use compliance-proven information to make termination and transition decisions that meet company goals.**

**Measurement Criteria:** *Establish criteria.*

**Measurement Criteria:** *Ensure compliance with federal, state and local laws.*

**Measurement Criteria:** *Document communications with employees.*

**Measurement Criteria:** *Conduct exit interview with employee.*

**Performance Element: Develop programs to assist in meeting needs of separated and transitional employees.**

**Measurement Criteria:** *Determine employee needs.*

**Measurement Criteria:** *Research materials and methods available.*

**Measurement Criteria:** *Communicate programs available.*

### **Pathway KS Statement: Identify key elements to develop and implement a performance appraisal system.**

**Performance Element: Determine elements of an evaluation system for a given**

## **Pathway Topic: Recruitment, Retention and Termination of Employees** company.

**Measurement Criteria:** *Identify what knowledge, skills and behaviors will be evaluated.*

**Measurement Criteria:** *Identify who will conduct the evaluation.*

**Measurement Criteria:** *Develop an evaluation instrument.*

**Measurement Criteria:** *Analyze evaluation process based on federal, state and local laws.*

### **Performance Element: Implement an employee appraisal system for a company.**

**Measurement Criteria:** *Determine evaluation timeline.*

**Measurement Criteria:** *Communicate evaluation methods/procedures to employees.*

**Measurement Criteria:** *Conduct employee appraisal interviews.*

### **Performance Element: Create a system to maintain employee appraisal records for a company.**

**Measurement Criteria:** *Complete employee appraisal records and documentation.*

**Measurement Criteria:** *Ensure confidentiality of records.*

**Measurement Criteria:** *Establish criteria for file reviews by employees.*

## **Pathway Topic: Personnel Policies and Procedures**

### **Pathway KS Statement: Organize and maintain an organization's personnel policies and procedures documents to assure consistency.**

#### **Performance Element: Develop and/or revise policies and procedures to maintain company personnel policies.**

**Measurement Criteria:** *Review current policies and procedures.*

**Measurement Criteria:** *Identify areas where policies and procedures must be added or revised.*

**Measurement Criteria:** *Develop and maintain company policies and procedures (e.g. grievance, appeals and progressive disciplinary procedures).*

#### **Performance Element: Participate in strategic planning to support company's mission.**

**Measurement Criteria:** *Gather and interpret internal operations information.*

**Measurement Criteria:** *Gather and interpret general business and industry practices information.*

**Measurement Criteria:** *Work with executives to ensure support for organization's policies and practices.*

**Measurement Criteria:** *Provide information for budget processes in human functional areas.*

### **Pathway KS Statement: Establish and implement programs, practices and procedures to protect workers and the workplace.**

#### **Performance Element: Read regulations to promote compliance with applicable health and safety laws and regulations.**

**Measurement Criteria:** *Maintain knowledge of federal, state and local laws and regulations.*

**Measurement Criteria:** *Establish policies and programs that promote health and safety.*

**Measurement Criteria:** *Work with supervisors and managers to enforce safety*

## Pathway Topic: Personnel Policies and Procedures

*programs.*

**Measurement Criteria:** *Educate employees about health and safety.*

**Measurement Criteria:** *Monitor worker's compensation claims and costs.*

**Performance Element:** **Provide resources for the organization to protect employees and the workplace.**

**Measurement Criteria:** *Develop emergency response plans.*

**Measurement Criteria:** *Work with management to plan and acquire safety equipment.*

**Measurement Criteria:** *Represent the organization when appropriate in work with federal, state and local regulatory agencies.*

**Measurement Criteria:** *Ensure appropriate documentation of workplace incidents.*

**Pathway KS Statement:** **Formulate human resources objectives, practices and policies to contribute to organizational effectiveness.**

**Performance Element:** **Participate in strategic planning process and implementation to manage business operations.**

**Measurement Criteria:** *Gather and interpret internal operations information.*

**Measurement Criteria:** *Gather and interpret general business and industry practices information.*

**Measurement Criteria:** *Establish strategic relationships within and outside the organization.*

**Measurement Criteria:** *Provide information for budget processes in human resources functional areas.*

**Performance Element:** **Communicate and monitor legal and regulatory processes to ensure compliance to manage business operations.**

**Measurement Criteria:** *Monitor the legislative environment.*

**Measurement Criteria:** *Provide guidance to organization's management on legal issues related to employment and employee relations.*

**Measurement Criteria:** *Cultivate leadership and ethical values within the organization.*

## Pathway Topic: Labor Relations

**Pathway KS Statement:** **Recognize the importance of union-management relationships and contracts to ensure business continuity.**

**Performance Element:** **Analyze contracts and company's position to assist management in labor contract negotiations.**

**Measurement Criteria:** *Analyze current contract.*

**Measurement Criteria:** *Compile information on proposed contract.*

**Measurement Criteria:** *Communicate management's position.*

**Measurement Criteria:** *Arrange and schedule meetings between parties.*

**Measurement Criteria:** *Prepare and present contract cases.*

**Performance Element:** **Monitor implementation of contract for compliance.**

**Measurement Criteria:** *Analyze hours, wages and working conditions.*

**Measurement Criteria:** *Complete statistical reports on findings.*

**Measurement Criteria:** *Schedule and meet with union representatives.*

**Measurement Criteria:** *Resolve grievances and problems.*

## PATHWAY: Business Analysis

### Pathway Topic: Defining the Goal

**Pathway KS Statement:** *Use reliable information to research the problem.*

**Performance Element:** Identify factors and other considerations to clearly state the problem.

**Measurement Criteria:** *List the most important elements of the problem.*

**Measurement Criteria:** *Distinguish between quantitative and non-quantitative information.*

**Performance Element:** Appraise environmental and other parameters to identify the potential affects of the problem.

**Measurement Criteria:** *List environmental influences.*

**Measurement Criteria:** *Distinguish between the controllable and non-controllable factors.*

**Measurement Criteria:** *Document benefits of solving the problem will provide.*

**Performance Element:** Explore stakeholder needs to determine impact to the stakeholders.

**Measurement Criteria:** *Identify the stakeholders.*

**Measurement Criteria:** *Describe the impact on the various stakeholders.*

**Measurement Criteria:** *Discuss the problem with stakeholders.*

**Measurement Criteria:** *Identify stakeholder needs.*

**Pathway KS Statement:** *Form a clear statement of the problem to ensure consistent understanding among all stakeholders.*

**Performance Element:** Develop a problem statement.

**Measurement Criteria:** *Write the problem statement using the conventions of standard English.*

**Measurement Criteria:** *Include factors, time and measurement in problem statement.*

**Measurement Criteria:** *Solicit feedback from stakeholders to validate problem statement.*

**Pathway KS Statement:** *Formulate assumptions and a hypothesis to facilitate a solution.*

**Performance Element:** Formulate assumptions to gain a better understanding of the causes of the problem.

**Measurement Criteria:** *Apply quantitative measures for assumptions.*

**Measurement Criteria:** *Develop a rationale for each assumption.*

**Measurement Criteria:** *Compile a list of hurdles to overcome.*

**Performance Element:** Examine various approaches to articulate possible solutions.

**Measurement Criteria:** *Solicit input from each stakeholder*

**Measurement Criteria:** *Describe each approach using quantitative measures.*

**Measurement Criteria:** *Estimate resources involved in each approach.*

### Pathway Topic: Collect and Evaluate Data

**Pathway KS Statement:** *Compile data to validate assumptions and hypothesis.*

**Performance Element:** Examine available sources to determine key elements.

## Pathway Topic: Collect and Evaluate Data

**Measurement Criteria:** List data elements.

**Measurement Criteria:** Explain how each data element relates to the overall problem or goal statement.

**Measurement Criteria:** Quantify amount of data needed.

**Measurement Criteria:** Prioritize data.

**Performance Element: Develop a plan for gathering data.**

**Measurement Criteria:** Locate data sources.

**Measurement Criteria:** Estimate resources required.

**Measurement Criteria:** Create a time-line for data collection.

**Performance Element: Solicit feedback from stakeholders to validate data**

**Measurement Criteria:** Obtain data from sources identified.

**Measurement Criteria:** Conduct meetings with key stakeholders and others who will provide data.

**Measurement Criteria:** Obtain buy-in from data providers.

**Measurement Criteria:** Further define the problem if data indicates need.

**Performance Element: Organize the data to facilitate interpretation.**

**Measurement Criteria:** Select the appropriate storage schema.

**Measurement Criteria:** Use information technology tools to store the data.

**Pathway KS Statement: Evaluate the data to validate assumptions and hypothesis.**

**Performance Element: Convert data into key metrics to facilitate interpretation.**

**Measurement Criteria:** Apply Information Technology tools to perform mathematical computations.

**Measurement Criteria:** Identify applicable formulas.

**Measurement Criteria:** Apply formulas to data.

**Performance Element: Interpret information to validate assumptions and hypothesis.**

**Measurement Criteria:** Identify trends and perform a regression analysis.

**Measurement Criteria:** Determine key data elements.

**Measurement Criteria:** Evaluate data collected in context.

**Measurement Criteria:** Determine relevance of data collected

**Performance Element: Prepare data in a format to facilitate interpretation.**

**Measurement Criteria:** Create graphical representations of metrics.

**Measurement Criteria:** Determine usable format.

## Pathway Topic: Formulate and Evaluate Solutions

**Pathway KS Statement: Generate alternatives to facilitate comparisons.**

**Performance Element: Review data to determine key leverage points.**

**Measurement Criteria:** Examine data to determine key leverage points.

**Measurement Criteria:** Justify each leverage point based on the data.

**Measurement Criteria:** Rank the leverage points.

**Measurement Criteria:** Prepare cost benefit analysis.

**Performance Element: Identify constraints to evaluate feasibility of alternatives.**

**Measurement Criteria:**

## Pathway Topic: Formulate and Evaluate Solutions

*List constraints.*

**Measurement Criteria:** *Relate constraints to identified leverage points.*

**Performance Element:** **Seek a variety of input to create alternative solutions.**

**Measurement Criteria:** *Brainstorm ideas.*

**Measurement Criteria:** *Prepare options in writing.*

**Performance Element:** **Eliminate infeasible alternatives to save time.**

**Measurement Criteria:** *Compare each option to the stakeholders' needs.*

**Measurement Criteria:** *Estimate resource needs of each alternative.*

**Performance Element:** **Establish the means for comparing alternatives.**

**Measurement Criteria:** *Select criteria.*

**Measurement Criteria:** *Determine how each solution stands against criteria.*

**Measurement Criteria:** *Analyze extenuating circumstances and factors.*

## Pathway Topic: Select and Present a Solution

**Pathway KS Statement:** **Explore possibilities to select the most beneficial solution.**

**Performance Element:** **Review criteria to evaluate the potential and limitation to each solution**

**Measurement Criteria:** *Summarize each solution against criteria.*

**Measurement Criteria:** *Estimate and explore the impact of each solution.*

**Performance Element:** **Compare the alternatives to select the best solution**

**Measurement Criteria:** *Rank solutions based on overall outcome*

**Measurement Criteria:** *Justify solution.*

**Pathway KS Statement:** **Prepare presentation of solutions to communicate to stakeholders.**

**Performance Element:** **Condense and customize information to prepare a presentation.**

**Measurement Criteria:** *Condense information into a concise format.*

**Measurement Criteria:** *Customize presentation for the audience.*

**Measurement Criteria:** *Prepare supporting documents and visuals.*

**Measurement Criteria:** *List possible questions and concerns.*

**Performance Element:** **Use effective communication skills to present the solutions.**

**Measurement Criteria:** *Capture the attention of the audience.*

**Measurement Criteria:** *Model appropriate use of materials.*

**Measurement Criteria:** *Employ a logical progression of ideas and information.*

**Measurement Criteria:** *Meet the expectations of the audience effectively.*

## Pathway Topic: Control the Process

**Pathway KS Statement:** **Communicate with all stakeholders throughout the process to ensure alignment of energies and resources..**

**Performance Element:** **Establish a time-line and milestones to gauge progress.**

**Measurement Criteria:** *Create a time-line.*

**Measurement Criteria:** *Obtain approval of the time-line from stakeholders.*

## Pathway Topic: Control the Process

**Measurement Criteria:** *Evaluate and adjust the time-line as necessary.*

**Performance Element:** **Periodically review timeline and progress to make adjustments expeditiously.**

**Measurement Criteria:** *Evaluate progress against time-line and goals*

**Measurement Criteria:** *Recommend and make changes based on analysis.*

**Performance Element:** **Provide periodic reports for stakeholder evaluation.**

**Measurement Criteria:** *Exchange data and information with stakeholders.*

**Measurement Criteria:** *Solicit feedback from stakeholders.*

**Measurement Criteria:** *Prepare reports.*

## PATHWAY: Marketing & Communications

### Pathway Topic: Pricing

**Pathway KS Statement:** *Apply a variety of approaches to determine the appropriate price for a product/service.*

**Performance Element:** Use different pricing methods to calculate the price of a products/service.

**Measurement Criteria:** *Explain the importance of break even point and its role in pricing.*

**Measurement Criteria:** *Determine the best approach to price of a product using the elements of : cost-based pricing, demand-based pricing, competition-based pricing, psychological pricing, promotional pricing.*

**Performance Element:** Determine company goals and external issues necessary to determine pricing.

**Measurement Criteria:** *Explain the importance of return on investment (ROI) and apply it to pricing of a product/service.*

**Measurement Criteria:** *Identify and apply the goals of market penetration/market share of the company.*

**Measurement Criteria:** *Identify and apply the global influences and the impact on pricing.*

**Measurement Criteria:** *Identify government regulations, their cost and integrate the cost into pricing.*

**Pathway KS Statement:** *Relate factors that influence price to a product's price.*

**Performance Element:** List and discuss the factors to determine price.

**Measurement Criteria:** *List the factors that influence price.*

**Measurement Criteria:** *Identify and match key factors to product.*

**Measurement Criteria:** *Prioritize factors and apply to the process of calculating price.*

**Measurement Criteria:** *Determine break even point.*

**Measurement Criteria:** *Determine pricing that will maximize profits.*

**Performance Element:** Determine perceived quality to establish a price.

**Measurement Criteria:** *Discuss and conclude what determines quality in the product.*

**Measurement Criteria:** *Match the product quality to the perceptions of the customer.*

**Measurement Criteria:** *Apply appropriate price that will match market approval and customer satisfaction.*

**Performance Element:** Identify the total product cost to determine price.

**Measurement Criteria:** *Identify all elements of overhead and how to apply them to product pricing.*

**Measurement Criteria:** *Identify and apply marketing and sales expenses to pricing.*

**Performance Element:** Identify the impact of external (uncontrollable) activities or consumer practices to determining price.

**Measurement Criteria:** *Discuss consumer practices (shop lifting, improper returns, and product liability claims) and their impact on price.*

**Measurement Criteria:** *Explain the impact of consumer practices on return on*

## Pathway Topic: Pricing

*investment (ROI).*

**Pathway KS Statement: Evaluate customers and their needs to determine pricing of product or service.**

**Performance Element: List and discuss the concept of customer needs as it applies to a specific product/service price.**

**Measurement Criteria:** *Describe the product.*

**Measurement Criteria:** *Explain the difference between price and perceived quality.*

**Measurement Criteria:** *Identify customer needs and match to benefits of the product.*

**Measurement Criteria:** *Establish a perceived value to determine a price-based on the needs of customers and benefits of product.*

**Performance Element: Recognize geographic needs of product to determine price.**

**Measurement Criteria:** *Compare geographic needs of customers.*

**Measurement Criteria:** *Apply economic considerations for various geographic areas of product/service markets.*

**Pathway KS Statement: Apply pricing strategies to meet competition.**

**Performance Element: Identify the competitive practices to anticipate the future activities of competitors.**

**Measurement Criteria:** *Analyze and discuss competitors' previous and current pricing strategies.*

**Measurement Criteria:** *List all possible actions of the competitors and match the appropriate proactive response.*

**Measurement Criteria:** *Analyze return on investment (ROI) before adapting any pricing practices.*

**Performance Element: Identify and apply the process of altering pricing to meet competitive situations.**

**Measurement Criteria:** *Determine when price adjustments should be made.*

**Measurement Criteria:** *Identify the competitive environment and determine the appropriate alternative pricing approach.*

**Measurement Criteria:** *Apply bait and switch, descriptive pricing, dumping, loss leader pricing, and price discrimination to determine the best approach.*

**Measurement Criteria:** *Apply appropriate approaches for successful product/service price discounting.*

**Performance Element: Evaluate pricing formats to find the best solution to price altering.**

**Measurement Criteria:** *Analyze the impact of bait and switch on break even, return on investment (ROI), and mark up to determine the best approach.*

**Measurement Criteria:** *Analyze the impact of demand based pricing on break even, return on investment (ROI), and mark up to the pricing situation.*

**Measurement Criteria:** *Analyze the impact of mark up on break even, return on investment (ROI), and mark up on the pricing situation.*

**Pathway KS Statement: Apply technology to identify a variety of approaches for determining and monitoring pricing.**

## Pathway Topic: Pricing

**Performance Element:** Identify the ways that technology can be used to impact the pricing function.

**Measurement Criteria:** *Understand the quantitative variables of pricing and price variables that can be applied to software.*

**Measurement Criteria:** *List and discuss methods to apply technology to pricing.*

**Measurement Criteria:** *Identify the appropriate software and technology tools to use in establishing pricing.*

**Measurement Criteria:** *Identify the time saving and other financial advantages to using technology.*

**Performance Element:** Explain the specific applications of technology to determine pricing.

**Measurement Criteria:** *Match pricing application to appropriate technology/software needed in the process of setting prices.*

**Measurement Criteria:** *Evaluate the cost of technology versus the return on investment (ROI) and the impact on pricing of the product/service.*

**Measurement Criteria:** *Review the technology available in other elements of pricing such as applying price stickers.*

**Measurement Criteria:** *Use technology to monitor all elements of the price altering.*

**Pathway KS Statement:** **Apply strategies for determining and adjusting prices to maximize return and meet customer's perceptions of value.**

**Performance Element:** Develop objectives, policies and strategies to make pricing decisions.

**Measurement Criteria:** *Explain the relationship between price and purchasing decisions.*

**Measurement Criteria:** *List the factors that influence price.*

**Measurement Criteria:** *Calculate the price of a product/service or line of products/services using different pricing methods.*

**Performance Element:** Use technology to determine prices.

**Measurement Criteria:** *Explain the impact of technology on the roles of buyers and sellers in determining price.*

**Measurement Criteria:** *Demonstrate the use of technology in determining the price for a product/service.*

## Pathway Topic: Customer Service

**Pathway KS Statement:** **Use strategies necessary to determine appropriate level of customer service.**

**Performance Element:** Determine the appropriate activities to achieve high quality customer service.

**Measurement Criteria:** *Describe the level of customer service appropriate for a product/service or firm.*

**Measurement Criteria:** *Determine customer service needs based on customer contact.*

**Measurement Criteria:** *Maintain a file of key information about customers.*

**Measurement Criteria:** *Develop a system for contacting customers periodically.*

**Performance Element:** Determine activities necessary to offer the benefits of self service.

## Pathway Topic: Customer Service

**Measurement Criteria:** *Describe the activities necessary to offer self-service.*

**Measurement Criteria:** *Develop a plan to offer self-service for a line of products/services.*

## Pathway Topic: Selling

**Pathway KS Statement:** **Take necessary action to determine customer needs and wants and to respond through planned, personalized communication that influences purchase decisions.**

**Performance Element:** **Demonstrate techniques to achieve personal selling.**

**Measurement Criteria:** *List and demonstrate the steps in the personal selling process.*

**Measurement Criteria:** *Explain the role of personal selling in building customer relationships.*

**Performance Element:** **Demonstrate appropriate techniques to achieve electronic selling.**

**Measurement Criteria:** *Identify the types of electronic marketing.*

**Measurement Criteria:** *Explain the benefits and liabilities of electronic marketing to a specific product/service or firm.*

**Measurement Criteria:** *Design a sales campaign for a product or service utilizing web-based marketing or e-mail.*

**Pathway KS Statement:** **Establish selling philosophies to develop customer loyalty and profitability.**

**Performance Element:** **Develop selling policies that encourage long-term client relationships.**

**Measurement Criteria:** *Provide for effective customer service.*

**Measurement Criteria:** *Document expected ethical behaviors.*

**Measurement Criteria:** *Create value-added strategies.*

**Measurement Criteria:** *Document expectations for post-sale follow up.*

**Performance Element:** **Analyze current business conditions to isolate external factors affecting the selling relationship.**

**Measurement Criteria:** *Determine the legal requirements that apply to selling.*

**Measurement Criteria:** *Identify common and accepted practice as appropriate to the situation.*

**Measurement Criteria:** *Analyze current economic conditions.*

**Measurement Criteria:** *Explain position relative to competitive environment.*

**Pathway KS Statement:** **Utilize product and company attributes to help the customer understand benefit outcomes.**

**Performance Element:** **Develop benefit statements to show their unique relationship to the company.**

**Measurement Criteria:** *Acquire company information relevant to the customer.*

**Measurement Criteria:** *Analyze company information to determine benefits.*

**Measurement Criteria:** *Identify benefits unique to company.*

**Performance Element:** **Develop benefit statements to show their relationship to a product or service.**

**Measurement Criteria:** *Acquire product information relevant to customer.*

## Pathway Topic: Selling

**Measurement Criteria:** *Analyze product information to determine benefits.*

**Measurement Criteria:** *Identify benefits unique to product or brand.*

**Performance Element:** **Identify value-added considerations to show their relationship to a product or service.**

**Measurement Criteria:** *Emphasize brand promise.*

**Measurement Criteria:** *Explain warranties and guarantees.*

**Measurement Criteria:** *Upsell options relative to customer needs or wants (only).*

**Measurement Criteria:** *Suggest related products as appropriate.*

**Pathway KS Statement:** **Analyze client characteristics to facilitate the buying process.**

**Performance Element:** **Identify client purchasing processes to integrate significant elements into buying process.**

**Measurement Criteria:** *Determine demographic characteristics relative to purchase decision.*

**Measurement Criteria:** *Analyze psychographic characteristics relative to purchase decision.*

**Measurement Criteria:** *Analyze historical buying patterns and relationships.*

**Performance Element:** **Determine motives to help define customer buying process.**

**Measurement Criteria:** *Determine basic needs and wants.*

**Measurement Criteria:** *Identify customer motives.*

**Measurement Criteria:** *Differentiate between organizational and consumer behavior.*

**Measurement Criteria:** *Address personality needs.*

**Measurement Criteria:** *Analyze decision-making process.*

**Pathway KS Statement:** **Use accepted processes to complete the buying process.**

**Performance Element:** **Conduct prospecting to maintain or increase client base.**

**Measurement Criteria:** *Select prospecting techniques.*

**Measurement Criteria:** *Construct prospect list.*

**Measurement Criteria:** *Qualify leads.*

**Measurement Criteria:** *Maintain data.*

**Performance Element:** **Make a sales presentation to encourage customer to buy a product or use a service.**

**Measurement Criteria:** *Determine decision-makers and gatekeepers.*

**Measurement Criteria:** *Customize selling message to appropriate individual.*

**Measurement Criteria:** *Prepare support materials.*

**Measurement Criteria:** *Organize sales presentation to the interests of the decision-maker.*

**Measurement Criteria:** *Educate the client throughout sales presentation.*

**Measurement Criteria:** *Convert objections to benefits relative to client needs.*

**Measurement Criteria:** *Negotiate close.*

**Performance Element:** **Develop and implement a follow-up plan to enhance satisfaction and encourage a continuing relationship.**

**Measurement Criteria:** *Maintain detailed sales/service documentation.*

## Pathway Topic: Selling

**Measurement Criteria:** *Identify appropriate follow-up activities.*

**Measurement Criteria:** *Follow up in a timely fashion.*

**Measurement Criteria:** *Resolve complaints.*

**Measurement Criteria:** *Take corrective action as appropriate.*

**Measurement Criteria:** *Provide continuing education and training.*

**Measurement Criteria:** *Expand collaborative involvement with client.*

**Measurement Criteria:** *Exceed service expectations.*

## Pathway Topic: Distribution

**Pathway KS Statement:** **Utilize standard processes to move, store, locate and/or transfer ownership of goods and services.**

**Performance Element:** **Determine appropriate channels to distribute goods and services.**

**Measurement Criteria:** *List and explain five channels of distribution.*

**Measurement Criteria:** *Explain the relationship between customer service, price and channel of distribution.*

**Measurement Criteria:** *Determine appropriate channel of distribution for a product/service or line of products/services.*

## Pathway Topic: Promotion

**Pathway KS Statement:** **Disseminate information about products/services or firm to achieve a desired outcome for a product or service.**

**Performance Element:** **Develop a plan to promote a product/service.**

**Measurement Criteria:** *List and explain the various forms of sales promotion.*

**Measurement Criteria:** *Evaluate the various forms of sales promotion with regard to a specific line of products/services or firm.*

**Measurement Criteria:** *Determine appropriate use of sales promotion for a specific line of products/services or firm.*

**Performance Element:** **Prepare an advertising plan to promote a product/service.**

**Measurement Criteria:** *List and explain the various advertising media.*

**Measurement Criteria:** *Evaluate the appropriateness of various advertising media for a specific line of products/services or firm.*

**Measurement Criteria:** *Develop an advertising plan for a specific line of products/services or firm.*

**Performance Element:** **Utilize various forms of publicity to promote product/service.**

**Measurement Criteria:** *List and explain the various forms of publicity.*

**Measurement Criteria:** *Develop a plan to utilize publicity for a specific line of products/services or firm.*

**Performance Element:** **Exhibit a clear and concise understanding of ethical behavior to promote a product/service.**

**Measurement Criteria:** *List and explain how various forms of moral and ethical promotion lead to customer trust.*

**Measurement Criteria:** *Prepare a form of promotion with regard to both "truth in advertising" and "government instituted laws."*

**Performance Element:** **Develop a plan to use all forms of promotional mix to develop**

## Pathway Topic: Promotion

a well-rounded sales campaign.

**Measurement Criteria:** *List and explain the basic types of a promotional mix.*

**Measurement Criteria:** *Evaluate how all types of a promotional mix will coordinate in a small-scale sales campaign.*

**Measurement Criteria:** *Develop a sales campaign utilizing all four types of promotional mix to assure a products/service is widely recognized.*

**Performance Element:** **Use appropriate terminology to promote a product or service.**

**Measurement Criteria:** *Demonstrate appropriate uses of the computer in the different areas of promotion.*

**Measurement Criteria:** *Utilize computer technology to convey the promotional message to the customer.*

**Performance Element:** **Exhibit a clear and concise understanding of promotion to market a product or service.**

**Measurement Criteria:** *List and define the concept of promotion.*

**Measurement Criteria:** *Demonstrate how the types of promotion encompass and compliment the other functions of marketing.*

## Pathway Topic: Communications

**Pathway KS Statement:** **Utilize concepts, strategies and systems necessary to interact effectively with others**

**Performance Element:** **Apply effective presentation skills to a marketing/sales situation.**

**Measurement Criteria:** *Explain the difference between persuasive and informative presentations.*

**Measurement Criteria:** *Develop a sales presentation for marketing a specific product/service.*

**Measurement Criteria:** *Exhibit negotiation skills in marketing of products/service.*

**Performance Element:** **Exhibit verbal communication skills to provide information at staff meetings and trade shows.**

**Measurement Criteria:** *Contribute ideas gained from staff meetings and trade shows with co-workers supervisors and customers.*

**Measurement Criteria:** *Network with potential customers.*

**Measurement Criteria:** *Conduct staff meetings.*

**Measurement Criteria:** *Develop potential partnerships.*

**Pathway KS Statement:** **Develop and deliver the effective customer relations skills to provide good customer service.**

**Performance Element:** **Inform and update co-workers and supervisors of progress and concerns to meet customer needs.**

**Measurement Criteria:** *Share product/service and company information with co-workers and supervisors.*

**Measurement Criteria:** *Share innovative ideas in selling particular products and services.*

**Measurement Criteria:** *Inform supervisors of customer questions and requests.*

## Pathway Topic: Communications

**Performance Element:** Shares ideas about selling and maintaining products/services with customers and co-workers to maintain sales continuity.

**Measurement Criteria:** *Read product/service and company information.*

**Measurement Criteria:** *Relate product/service and company information with co-workers, supervisors and customers.*

**Measurement Criteria:** *Informs supervisors of customer questions and requests.*

**Pathway KS Statement:** **Provide ethical, legal and culturally sensitive information to customers and co-workers.**

**Performance Element:** Exercise cultural sensitivity to interact with customers and co-workers.

**Measurement Criteria:** *Research current domestic and international affairs related to market .*

**Measurement Criteria:** *Develop strategies and promotional ideas relating to current issues relating to the target audience.*

**Performance Element:** Examine ethical and legal issues to provide information in a given marketing situation.

**Measurement Criteria:** *Explain reasons for safeguarding confidential information.*

**Measurement Criteria:** *Describe why you should provide honest information to and about consumers.*

**Measurement Criteria:** *Discuss ethical methods of communicating information to others.*

## Pathway Topic: Product/Service Management

**Pathway KS Statement:** **Apply the concepts and processes necessary to obtain, develop, maintain and improve a product/service mix.**

**Performance Element:** Examine consumer product/service to compare it to industrial productions/service.

**Measurement Criteria:** *List and define consumer products/services.*

**Measurement Criteria:** *List and define industrial products/services.*

**Performance Element:** Develop a product/service mix to service a selected market.

**Measurement Criteria:** *Prepare a list of potential products/services.*

**Measurement Criteria:** *Analyze product/service liability risks.*

**Measurement Criteria:** *Select products/services to market.*

**Performance Element:** Conduct research for potential new products/services to market to meet customer needs.

**Measurement Criteria:** *Analyze requests from customers.*

**Measurement Criteria:** *Review new products/services from catalogs, trade shows, and advertisements.*

**Measurement Criteria:** *Prepare list of possible products/services.*

**Pathway KS Statement:** **Apply the product/service management function to a marketing business.**

**Performance Element:** Explain the importance of product/service management to a marketing business.

**Measurement Criteria:** *Define product/service management.*

## Pathway Topic: Product/Service Management

**Measurement Criteria:** *List the benefits of product/service management.*

**Measurement Criteria:** *Describe the classes of product/service management.*

**Measurement Criteria:** *Explain the role of product/service management in marketing.*

**Performance Element:** **Explain the impact of product life cycles to marketing decisions.**

**Measurement Criteria:** *Define the following: product life cycle, introduction, growth, and maturity.*

**Measurement Criteria:** *Identify the stages of a product life cycle.*

**Measurement Criteria:** *Discuss the impact of each step of the life cycle and decision making.*

**Performance Element:** **Use technology to perform functions of product/service management.**

**Measurement Criteria:** *Identify ways that the use of technology impacts product/service management.*

**Measurement Criteria:** *Explain specific applications of technology in product/service management.*

**Performance Element:** **Explain the relationship of business ethics to product/service management.**

**Measurement Criteria:** *Describe ethical consideration in product packaging.*

**Measurement Criteria:** *Explain how planned obsolescence is an ethical issue for business.*

**Measurement Criteria:** *Explain ethical issues associated with product liability.*

**Pathway KS Statement:** **Apply various types of quality assurance to product service management.**

**Performance Element:** **Maximize the use of grades and standards to product service management.**

**Measurement Criteria:** *Define the terms grades and standards.*

**Measurement Criteria:** *Explain the reasons for using grades and standards.*

**Measurement Criteria:** *Describe the ways that grades and standards aid in buying and selling.*

**Performance Element:** **Explain the importance of warranties and guarantees to product service management.**

**Measurement Criteria:** *Define the following: warranty, express warranty, implied warranty, full warranty, limited warranty, and guarantee.*

**Measurement Criteria:** *Identify the provisions of a full warranty.*

**Measurement Criteria:** *Describe the purposes of warranties and guarantees.*

**Performance Element:** **Identify the provisions of appropriate agencies to protect consumers.**

**Measurement Criteria:** *Describe the forms of consumer protection associated with product/service management.*

**Measurement Criteria:** *Explain why consumer protection is needed in product/service management.*

**Measurement Criteria:** *Discuss the role of government and private agencies in protecting consumers.*

## Pathway Topic: Product/Service Management

**Pathway KS Statement: Create a product mix that meets the needs of customers and produces a profit for the company.**

**Performance Element: Determine ways to achieve product mix.**

**Measurement Criteria:** *Define product mix, product item, product line, width, depth, consistency, expansion, contraction, alteration, trading up, trading down and positioning.*

**Measurement Criteria:** *Discuss ways in which product lines can be organized.*

**Performance Element: Relate the importance of product bundling to marketing products.**

**Measurement Criteria:** *Define the term product bundling.*

**Measurement Criteria:** *Identify the reasons for bundling products.*

**Measurement Criteria:** *Describe ways in which products can be bundled.*

**Measurement Criteria:** *Explain the impact of bundling on pricing decisions.*

**Performance Element: Develop a plan to create a product mix.**

**Measurement Criteria:** *Describe considerations in selecting product mix strategies.*

**Measurement Criteria:** *Identify factors that can minimize costs in developing a product mix.*

**Performance Element: Determine appropriate services to offer customers within a product mix.**

**Measurement Criteria:** *Discuss reasons for providing services to customers.*

**Measurement Criteria:** *Identify possible services to provide for customers.*

**Measurement Criteria:** *Determine the costs associated with providing specific services to customers.*

**Measurement Criteria:** *Develop an appropriate set of services for customers within a product mix.*

**Pathway KS Statement: Apply marketing factors to position products and services in a business.**

**Performance Element: Describe marketing factors that are used to position products and services in a business.**

**Measurement Criteria:** *Define competitive advantage and positioning.*

**Measurement Criteria:** *Explain the relationship between target market and positioning.*

**Performance Element: Use product branding to position products and services.**

**Measurement Criteria:** *Define brand, brand name, brand mark, generic brand, national brand, private brand and licensing.*

**Measurement Criteria:** *Explain the advantage(s) of branding to a business.*

**Measurement Criteria:** *Discuss the factors that affect the decision to brand/not brand.*

**Performance Element: Explain the role of customer service to positioning/image of product/service.**

**Measurement Criteria:** *Explain the importance of customer service to positioning/image.*

**Measurement Criteria:** *Describe the elements of customer service that can be considered in establishing specific images.*

**Measurement Criteria:** *Discuss the trade-offs associated with establishing a level of*

## **Pathway Topic: Product/Service Management**

*customer service.*

## **PATHWAY: Administrative & Information Support**

### **Pathway Topic: Information Processing**

**Pathway KS Statement: Use word processing software to produce documents.**

**Performance Element: Use keyboarding skills to key new documents.**

**Measurement Criteria:** Complete with 100% accuracy and within allotted time.

**Measurement Criteria:** Format correctly.

**Measurement Criteria:** Free of smudges and extraneous marks.

**Measurement Criteria:** Incorporate use of spell check, Thesaurus, and/or grammar check features.

**Measurement Criteria:** Free of unnecessary computer commands.

**Performance Element: Use software techniques to insert a graphic in document.**

**Measurement Criteria:** Complete with 100% accuracy and within allotted time.

**Measurement Criteria:** Placement most effective.

**Measurement Criteria:** Properly captioned.

**Measurement Criteria:** Free of unnecessary computer commands.

**Performance Element: Use software commands to design a table.**

**Measurement Criteria:** Complete with 100% accuracy and within allotted time.

**Measurement Criteria:** Display relationship among groups of data.

**Measurement Criteria:** Use borders, lines, and leaders, to emphasize relationship among data groups.

**Measurement Criteria:** Format to meet data requirements.

**Measurement Criteria:** Free of unnecessary commands.

**Performance Element: Use computer software to design forms.**

**Measurement Criteria:** Complete with 100% accuracy and within allotted time.

**Measurement Criteria:** Provide sufficient space to contain data allotted.

**Measurement Criteria:** Record data in logical arrangement.

**Measurement Criteria:** Free of unnecessary commands.

**Performance Element: Apply computer skills to complete preprinted forms.**

**Measurement Criteria:** Information in specified allotted areas.

**Measurement Criteria:** Appears slightly above horizontal lines

**Measurement Criteria:** Complete with 100% accuracy.

**Performance Element: Use a scanner to scan data and insert data into a document electronically.**

**Measurement Criteria:** Complete with 100% accuracy.

**Measurement Criteria:** Scan data into specified location

**Measurement Criteria:** Free of unnecessary commands.

**Performance Element: Use software commands to merge text.**

**Measurement Criteria:** Complete with 100% accuracy and within allotted time.

**Measurement Criteria:** Free of unnecessary commands.

**Measurement Criteria:** Format to meet assignment requirements.

**Pathway KS Statement: Prepare documents for presentation.**

**Performance Element: Use traditional notation to proofread and edit documents.**

## Pathway Topic: Information Processing

**Measurement Criteria:** *Identify and use proofreaders' marks to indicate all errors in format.*

**Measurement Criteria:** *Identify and use proofreaders' marks to indicate all errors in content.*

**Measurement Criteria:** *Identify and use proofreaders' marks to indicate all errors in spelling and grammar.*

**Performance Element:** **Secure document notarization.**

**Measurement Criteria:** *Sign document in presence of notary by signatory.*

**Measurement Criteria:** *Verify Notary Public document's execution by proper person.*

**Measurement Criteria:** *Complete correct data and signatures in proper blanks.*

**Measurement Criteria:** *Confirm expiration date of notary commission.*

**Measurement Criteria:** *Affix seal or stamp as required by local law.*

**Performance Element:** **Utilize resource materials to prepare documents.**

**Measurement Criteria:** *Access on-line resources.*

**Measurement Criteria:** *Access Library and other resource materials.*

**Measurement Criteria:** *Collect information.*

**Measurement Criteria:** *Evaluate information.*

**Measurement Criteria:** *Document sources.*

**Pathway KS Statement:** **Use database software to produce documents.**

**Performance Element:** **Use database software to create databases.**

**Measurement Criteria:** *Choose appropriate software.*

**Measurement Criteria:** *Define fields and type of data.*

**Measurement Criteria:** *Enter database structure.*

**Measurement Criteria:** *NEW Define relationships of tables*

**Performance Element:** **Use data entry techniques to enter information in databases.**

**Measurement Criteria:** *Enter data into databases, tables and/or forms.*

**Measurement Criteria:** *Edit data in databases, tables and/or forms.*

**Measurement Criteria:** *Create interface user form for easier entry of data.*

**Measurement Criteria:** *Be able to import and/or export databases*

**Performance Element:** **Use appropriate commands to retrieve data and create reports from database.**

**Measurement Criteria:** *Retrieve data from tables and queries.*

**Measurement Criteria:** *Create queries.*

**Measurement Criteria:** *Create and print reports.*

**Pathway KS Statement:** **Use spreadsheet software to produce documents.**

**Performance Element:** **Use spreadsheet software to create spreadsheets.**

**Measurement Criteria:** *Choose appropriate software for creating spreadsheets.*

**Measurement Criteria:** *Enter labels and values into spreadsheet cells.*

**Measurement Criteria:** *Format labels and values.*

**Performance Element:** **Enter appropriate formulas and functions in a document.**

**Measurement Criteria:** *Develop formulas and enter appropriate functions.*

**Measurement Criteria:** *Check formulas and functions with sample values.*

## Pathway Topic: Information Processing

**Performance Element:** Create components to analyze spreadsheet data.

**Measurement Criteria:** Produce and print graphs.

**Measurement Criteria:** Produce PivotCharts.

**Measurement Criteria:** Create "what if" scenarios.

**Measurement Criteria:** Print reports

**Measurement Criteria:** Print formulas

**Pathway KS Statement:** Choose appropriate software to enter information.

**Performance Element:** Analyze, compare and contrast available software packages to use.

**Measurement Criteria:** Review software package.

**Measurement Criteria:** Develop a cost/benefit analysis.

**Measurement Criteria:** Rank software to select.

**Performance Element:** Use appropriate software to generation information reports.

**Measurement Criteria:** Enter appropriate data.

**Measurement Criteria:** Generate output.

**Measurement Criteria:** Evaluate output and adjust as needed.

**Performance Element:** Review software package to select the best choice.

**Measurement Criteria:** Compare efficiency.

**Measurement Criteria:** Compare costs.

**Measurement Criteria:** Compare benefits.

## Pathway Topic: Manage Records and Files

**Pathway KS Statement:** Establish and follow procedures to manage paper/manual records.

**Performance Element:** Establish a filing system to preserve records.

**Measurement Criteria:** Compare basic filing systems.

**Measurement Criteria:** Index and code records.

**Performance Element:** File, retain, and discard materials in a timely manner to manage records.

**Measurement Criteria:** Retrieve records.

**Measurement Criteria:** Refile records.

**Measurement Criteria:** Establish retention schedule.

**Measurement Criteria:** Transfer or discard records.

**Performance Element:** Destroy records as required to maintain company security.

**Measurement Criteria:** Develop and apply retention policies.

**Measurement Criteria:** Apply retention policies.

**Measurement Criteria:** Maintain destruction records.

**Measurement Criteria:** Use appropriate destruction methods.

**Pathway KS Statement:** Establish and follow procedures for electronic filing.

**Performance Element:** Establish document priorities to interpret file hierarchy.

**Measurement Criteria:** Explain file hierarchy.

**Measurement Criteria:** Establish folder/subfolder organization.

## Pathway Topic: Manage Records and Files

**Measurement Criteria:** *Identify file pathways.*

**Performance Element:** **Employ computer skills to manage electronic files.**

**Measurement Criteria:** *Organize information into appropriate folders.*

**Measurement Criteria:** *Purge files.*

**Pathway KS Statement:** **Establish and follow procedures for image processing.**

**Performance Element:** **Prepare records to track image processing.**

**Measurement Criteria:** *Compare methods of processing.*

**Measurement Criteria:** *Select image processing methods.*

**Measurement Criteria:** *Organize records for processing.*

**Performance Element:** **Retain, transfer and discard files as necessary to manage records.**

**Measurement Criteria:** *Retrieve records.*

**Measurement Criteria:** *Refile records.*

**Measurement Criteria:** *Establish retention schedule for records.*

**Measurement Criteria:** *Transfer or discard records.*

**Performance Element:** **Develop guidelines for the destruction of records.**

**Measurement Criteria:** *Apply retention policies.*

**Measurement Criteria:** *Use appropriate destruction method.*

**Measurement Criteria:** *Maintain destruction records.*

## Pathway Topic: Organizing and Planning

**Pathway KS Statement:** **Apply planning and time management principles to accomplish workplace efficiency and achieve company objectives.**

**Performance Element:** **List appointments and itineraries to maintain calendars.**

**Measurement Criteria:** *Keep record of boss's appointments and itineraries.*

**Measurement Criteria:** *Keep record of individual appointments.*

**Measurement Criteria:** *Synchronize manual and electronic calendars.*

**Measurement Criteria:** *"Hot synk" hand held computers with desk tops.*

**Performance Element:** **Set priorities and schedule work to organize workload.**

**Measurement Criteria:** *Establish "To do" lists with due dates.*

**Measurement Criteria:** *Determine office priorities.*

**Measurement Criteria:** *Organize work in logical sequence.*

**Measurement Criteria:** *Coordinate work with others to meet priorities.*

**Measurement Criteria:** *Meet deadlines.*

**Performance Element:** **Exercise good housekeeping to maintain a clean and functional work environment.**

**Measurement Criteria:** *Organize and categorize office work, supplies, and resources.*

**Measurement Criteria:** *Remove clutter from work area.*

**Measurement Criteria:** *Return materials to their proper place.*

**Pathway KS Statement:** **Plan and participate in meetings.**

**Performance Element:** **Assemble materials to prepare for meetings.**

## Pathway Topic: Organizing and Planning

**Measurement Criteria:** *Prepare agenda.*

**Measurement Criteria:** *Reserve meeting room.*

**Measurement Criteria:** *Prepare meeting materials and handouts.*

**Measurement Criteria:** *Setup audio visual equipment.*

**Performance Element:** **Take notes and handle materials to support a meeting.**

**Measurement Criteria:** *Record minutes.*

**Measurement Criteria:** *Troubleshoot unexpected problems.*

**Measurement Criteria:** *Disseminate materials.*

**Performance Element:** **Prepare notes and process travel claims to provide meeting follow-up.**

**Measurement Criteria:** *Transcribe minutes, (NEW print) and distribute.*

**Measurement Criteria:** *Summarize action plan.*

**Measurement Criteria:** *Prepare or process travel reimbursement.*

**Pathway KS Statement:** **Prepare a maintenance schedule to maintain and manage equipment and supplies.**

**Performance Element:** **Establish procedures to maintain equipment and supplies.**

**Measurement Criteria:** *Determine equipment needed.*

**Measurement Criteria:** *Determine supplies needed.*

**Measurement Criteria:** *Establish equipment and supplies maintenance system.*

**Measurement Criteria:** *Schedule equipment maintenance procedure.*

**Measurement Criteria:** *Utilize equipment and supplies maintenance procedures.*

**Performance Element:** **Organize purchasing and inventory to manage equipment and supplies.**

**Measurement Criteria:** *Purchase, inventory, and maintain equipment.*

**Measurement Criteria:** *Purchase, inventory disburse and reorder supplies.*

**Performance Element:** **Train equipment operators to operate equipment.**

**Measurement Criteria:** *Operate equipment.*

**Measurement Criteria:** *Train or assist personnel in equipment operation.*

**Measurement Criteria:** *Troubleshoot equipment.*

**Measurement Criteria:** *Schedule equipment service.*

**Pathway KS Statement:** **Prepare travel arrangements.**

**Performance Element:** **Select suitable lodging and transportation to arrange travel for a supervisor.**

**Measurement Criteria:** *Search the best prices and location for transportation and hotels.*

**Measurement Criteria:** *Arrange transportation.*

**Measurement Criteria:** *Make hotel arrangements.*

**Measurement Criteria:** *Prepare and process travel reimbursements.*

**Performance Element:** **Organize schedules to prepare itinerary.**

**Measurement Criteria:** *Collect pertinent information.*

**Measurement Criteria:** *Prepare documents in correct format and order.*

**Measurement Criteria:** *Disseminate itinerary to appropriate personnel.*

## Pathway Topic: Communication Skills

### **Pathway KS Statement: Use telephone skills to communicate effectively.**

**Performance Element: Utilize effective resources to achieve good telephone performance.**

**Measurement Criteria:** *Use telephone directories.*

**Measurement Criteria:** *Use internet yellow/white pages.*

**Measurement Criteria:** *Use company or agency directories.*

**Measurement Criteria:** *Use toll free directories including web site directories.*

**Performance Element: Record messages and deliver to appropriate parties to complete telephone communications.**

**Measurement Criteria:** *Record message accurately, legibly and completely.*

**Measurement Criteria:** *Deliver message to appropriate person/department.*

**Performance Element: Coordinate times and participants to set up conference calls.**

**Measurement Criteria:** *Coordinate participants.*

**Measurement Criteria:** *Follow calling procedures.*

**Measurement Criteria:** *Troubleshoot any problems.*

**Performance Element: Employ telephone etiquette to place and receive calls.**

**Measurement Criteria:** *Use proper telephone etiquette.*

**Measurement Criteria:** *Follow company policy.*

**Measurement Criteria:** *Plan and organize call.*

**Measurement Criteria:** *Transfer calls to correct person.*

### **Pathway KS Statement: Select appropriate formats to prepare internal and external written documents.**

**Performance Element: Select format and procedure to produce memoranda appropriate for a given purpose.**

**Measurement Criteria:** *Select proper layout, i.e. direct, indirect.*

**Measurement Criteria:** *Use correct grammar, spelling, punctuation and other English mechanics.*

**Measurement Criteria:** *Prepare in correct memo format.*

**Measurement Criteria:** *Key without error.*

**Measurement Criteria:** *Disseminate to appropriate persons.*

**Performance Element: Select document type and layout to produce business letters.**

**Measurement Criteria:** *Determine use of document, e.g., sales, claims, good news.*

**Measurement Criteria:** *Prepare with correct layout.*

**Measurement Criteria:** *Use correct grammar, spelling, punctuation and other English mechanics.*

**Measurement Criteria:** *Key without error.*

**Performance Element: Select appropriate writing method to produce a variety of reports.**

**Measurement Criteria:** *Determine purpose of report.*

**Measurement Criteria:** *Select proper method of writing, e.g., short; informal.*

**Measurement Criteria:** *Prepare tables, graphs, and graphics.*

**Measurement Criteria:** *Use references and prepare notations and bibliography.*

## Pathway Topic: Communication Skills

**Measurement Criteria:** *Use correct grammar, spelling, punctuation and other English mechanics.*

**Measurement Criteria:** *Key without error.*

## Pathway Topic: Financial Skills

**Pathway KS Statement:** **Maintain records and reports to manage cash and banking procedures.**

**Performance Element:** Record transactions to manage cash fund accounts.

**Measurement Criteria:** *Keep records of petty cash disbursements.*

**Measurement Criteria:** *Replenish petty cash.*

**Measurement Criteria:** *Increase or decrease as necessary.*

**Performance Element:** Tally receipts and proof work to prepare bank deposits.

**Measurement Criteria:** *Prepare endorsement.*

**Measurement Criteria:** *Reconcile.*

**Measurement Criteria:** *Proof totals.*

**Performance Element:** Practice good bookkeeping guidelines to reconcile bank statements.

**Measurement Criteria:** *Compare checkbook to bank statement.*

**Measurement Criteria:** *Add deposits not credited.*

**Measurement Criteria:** *Subtract checks not cleared.*

**Measurement Criteria:** *Subtract bank charges from checkbook.*

**Measurement Criteria:** *Ensure bank statement balance equals checkbook balance.*

**Pathway KS Statement:** **Maintain employee time cards to manage payroll procedures.**

**Performance Element:** Use a spreadsheet to prepare payroll.

**Measurement Criteria:** *Create payroll spreadsheet.*

**Measurement Criteria:** *Proof time cards.*

**Measurement Criteria:** *Maintain accurate employee payroll records.*

**Performance Element:** Enter appropriate date and print checks to process payroll.

**Measurement Criteria:** *Enter variable data.*

**Measurement Criteria:** *Verify data entry.*

**Measurement Criteria:** *Produce payroll report/checks.*

## Pathway Topic: Computer Systems Operations and Troubleshooting

**Pathway KS Statement:** **Study component operation to prevent, diagnose, and solve computer operations problems.**

**Performance Element:** Check hard drive and files to maintain computer operating systems.

**Measurement Criteria:** *Manipulate operating system to improve performance.*

**Measurement Criteria:** *Optimize hard drive.*

**Measurement Criteria:** *Delete temporary files.*

**Measurement Criteria:** *Delete unnecessary data files.*

**Performance Element:** Employ updated virus protection software to maintain system data integrity.

## **Pathway Topic: Computer Systems Operations and Troubleshooting**

**Measurement Criteria:** *Install and update applications software.*

**Measurement Criteria:** *Install and update virus protection.*

**Measurement Criteria:** *Perform backups and other utilities.*

**Measurement Criteria:** *Perform maintenance.*

**Performance Element: Inspect and troubleshoot to diagnose and solve computer operation problems.**

**Measurement Criteria:** *Inspect personal computer component hardware.*

**Measurement Criteria:** *Describe network fundamentals.*

**Measurement Criteria:** *Analyze operating system components.*

**Measurement Criteria:** *Troubleshoot computer operation problems.*

**Performance Element: Inspect and troubleshoot to diagnose and solve peripheral operation problems.**

**Measurement Criteria:** *Install/reinstall drivers.*

**Measurement Criteria:** *Maintain peripherals.*

**Measurement Criteria:** *Explain peripheral configurations.*

**Measurement Criteria:** *Ensure appropriate connections.*

**Measurement Criteria:** *Create a checklist for troubleshooting peripherals.*



## **Section IV – O\*NET Crosswalk Report**



# Career Specialty/ Occupational Coding and Crosswalk

## Summary

The objective of the Career Specialty/ Occupational Coding and Crosswalk project is to accomplish two basic tasks. The first is to design and establish a classification and coding structure for the States' Career Clusters Initiative. When completed, the classification and coding structure will be compatible with existing occupational classification systems and designed in a manner that allows for easy updating and the flexibility to add additional career pathways and occupational specialties.

Once the first step is completed for each cluster, the second step is to build a linkage system or crosswalk between the new career cluster classification system and the O\*NET occupational classification system developed and operated by the U S Department of Labor. O\*NET is a nationally recognized taxonomy with detailed descriptions and a rich database of information for each occupation.

## Explanation of Crosswalk Table

The attached table lists each occupational specialty and its related O\*NET occupation. It is sequenced by career pathway and occupational specialty code. It should be noted that the relationship between an occupational specialty and its related O\*NET occupation is often not one-to-one. The O\*NET occupation is often much broader covering two or more occupational specialties. In fact, even when multiple occupational specialties are assigned, they may only represent a part of a broader O\*NET occupation.

Column 1: Lists occupational specialties that were identified by the Career Clusters Initiative. The occupational specialties are organized by cluster pathways and represent occupational titles with no definitions. They are intended to be a sample of occupations that help define the cluster and pathway.

Column 2: Represents related occupations from the O\*NET occupational coding system.

**Note: A crosswalk from the occupational specialties to the Classification of Instructional Programs (CIP) codes is forthcoming. The National Crosswalk Service Center is currently developing the CIP to O\*NET crosswalk which will be the bridge to the career cluster occupational specialties. You may access this crosswalk in the near future at: <http://www.xwalkcenter.org/>**

**Business, Management and Administration Career Cluster: Occupational Specialties and Related O\*NET Occupations, Sequenced  
by Career Pathway and Occupational Specialty Code**

Occupational Specialties		Related SOC/O*NET Occupations	
Code	Title	Code	Title
<b>4.00000</b>	<b>Management Pathway</b>		
4.10010	Entrepreneurs	11-1011.02	Chief Executives
4.10010	Entrepreneurs	11-1021.00	General and Operations Managers
4.10020	Chief Executives	11-1021.00	General and Operations Managers
4.10020	Chief Executives	11-1011.02	Chief Executives
4.10030	General Managers	11-1021.00	General and Operations Managers
4.10040	Accounting Manager	11-3031.00	Financial Managers
4.10050	Accounts Payable Manager	11-3031.00	Financial Managers
4.10060	Assistant Credit Manager	11-3031.00	Financial Managers
4.10070	Billing Manager	11-3031.00	Financial Managers
4.10080	Business and Development Manager	11-1021.00	General and Operations Managers
4.10090	Compensation and Benefits Manager	13-1072.00	Compensation, Benefits, and Job Analysis Specialists
4.10100	Credit and Collections Manager	11-3031.00	Financial Managers
4.10110	Payroll Manager	13-1072.00	Compensation, Benefits, and Job Analysis Specialists
4.10120	Risk Manager	11-9199.00	Managers, All Other
4.10130	Operations Managers	11-1021.00	General and Operations Managers
4.10140	Public Relations Managers	11-2031.00	Public Relations Managers
4.10150	Human Resource Managers	11-3040.00	Human Resources Managers
4.10160	Management Analysts	13-1111.00	Management Analysts
4.10170	Facilities Managers	11-3011.00	Administrative Services Managers
4.10180	Association Managers	11-2031.00	Public Relations Managers
4.10190	Meeting and Convention Planners	13-1121.00	Meeting and Convention Planners
4.10200	Administrative Services Managers	11-3011.00	Administrative Services Managers
4.10210	Sports and Entertainment Managers	13-1011.00	Agents and Business Managers of Artists, Performers, and Athletes
4.10220	Hospital Management	11-9111.00	Medical and Health Services Managers
4.10230	Government Management	11-1011.01	Government Service Executives
4.10240	Public Organization Management	11-2031.00	Public Relations Managers
4.10250	Manufacturing Management	11-3051.00	Industrial Production Managers
4.10260	Purchasing Management	11-3061.00	Purchasing Managers

**Business, Management and Administration Career Cluster: Occupational Specialties and Related O\*NET Occupations, Sequenced  
by Career Pathway and Occupational Specialty Code**

Occupational Specialties		Related SOC/O*NET Occupations	
Code	Title	Code	Title
4.10270	First Line Supervisors	99-0000-00	Classified with specific field of supervision
4.10280	Public Relations Specialists	27-3031.00	Public Relations Specialists
4.10290	Senior Managers	11-1021.00	General and Operations Managers
4.10300	Management Trainees	11-1021.00	General and Operations Managers
<b>4.20000</b>	<b>Business Financial Management and Accounting Pathway</b>		
4.20010	Accountants	13-2011.01	Accountants
4.20020	Accounting Clerk	43-3031.00	Bookkeeping, Accounting, and Auditing Clerks
4.20030	Accounting Supervisor	43-1011.02	First-Line Supervisors, Administrative Support
4.20040	Adjuster	43-4051.01	Adjustment Clerks
4.20050	Adjustment Clerk	43-4051.01	Adjustment Clerks
4.20060	Assistant Treasurer	11-3031.00	Financial Managers
4.20070	Auditor	13-2011.02	Auditors
4.20080	Bookkeeper	43-3031.00	Bookkeeping, Accounting, and Auditing Clerks
4.20090	Budget Analyst	13-2031.00	Budget Analysts
4.20100	Budget Manager	11-3031.01	Treasurers, Controllers, and Chief Financial Officers
4.20110	Billing Supervisor	43-1011.02	First-Line Supervisors, Administrative Support
4.20120	Cash Manager	11-3031.00	Financial Managers
4.20130	Controller	11-3031.01	Treasurers, Controllers, and Chief Financial Officers
4.20140	Merger and Acquisitions Manager	11-1011.00	Chief Executives
4.20150	Price Analyst	13-1111.00	Management Analysts
4.20160	Top Collections Executive	13-1031.00	Claims Adjusters, Examiners, and Investigators
4.20170	Top Investment Executive	11-3031.00	Financial Managers
4.20180	Treasurer	11-3031.01	Treasurers, Controllers, and Chief Financial Officers
4.20190	Chief Financial Officer	11-3031.01	Treasurers, Controllers, and Chief Financial Officers
4.20200	Finance Director	11-3031.01	Treasurers, Controllers, and Chief Financial Officers
4.20210	Certified Public Accountant	13-2011.01	Accountants
4.20220	Accounts Receivable Clerk	43-3031.00	Bookkeeping, Accounting, and Auditing Clerks
4.20230	Cost Accountant	13-2011.01	Accountants

**Business, Management and Administration Career Cluster: Occupational Specialties and Related O\*NET Occupations, Sequenced  
by Career Pathway and Occupational Specialty Code**

Occupational Specialties		Related SOC/O*NET Occupations	
Code	Title	Code	Title
4.20240	Financial Accountant	13-2011.01	Accountants
4.20250	Billing Clerk	43-3021.02	Billing, Cost, and Rate Clerks
4.20260	Payroll Accounting Clerk	43-3051.00	Payroll and Timekeeping Clerks
<b>4.30000</b>	<b>Human Resources Pathway</b>		
4.30010	Human Resource Managers	11-3040.00	Human Resources Managers
4.30020	International Human Resources Managers	11-3040.00	Human Resources Managers
4.30040	Human Resources Coordinators	13-1079.00	Human Resources, Training, and Labor Relations Specialists, All Other
4.30050	Industrial Relations Director	11-3049.00	Human Resources Managers, All Other
4.30060	Compensation and Benefits Managers	11-3041.00	Compensation and Benefits Managers
4.30070	Employment and Placement Managers	11-3049.00	Human Resources Managers, All Other
4.30080	Employee Assistance Plan Managers	11-3049.00	Human Resources Managers, All Other
4.30090	Training and Development Managers	11-3042.00	Training and Development Managers
4.30100	Human Resources consultant	13-1079.00	Human Resources, Training, and Labor Relations Specialists, All Other
4.30110	Corporate Trainer	13-1073.00	Training and Development Specialists
4.30120	Training and Development Specialists	13-1073.00	Training and Development Specialists
4.30130	Conciliators/Mediators/Arbitrators	13-1079.00	Human Resources, Training, and Labor Relations Specialists, All Other
4.30140	Employer Relations Representatives	13-1079.00	Human Resources, Training, and Labor Relations Specialists, All Other
4.30150	Labor and Personnel Relations Specialists	13-1079.00	Human Resources, Training, and Labor Relations Specialists, All Other
4.30160	Affirmative Action Coordinators	13-1079.00	Human Resources, Training, and Labor Relations Specialists, All Other
4.30170	Equal Employment Opportunity Specialists	13-1041.03	Equal Opportunity Representatives and Officers

**Business, Management and Administration Career Cluster: Occupational Specialties and Related O\*NET Occupations, Sequenced  
by Career Pathway and Occupational Specialty Code**

Occupational Specialties		Related SOC/O*NET Occupations	
Code	Title	Code	Title
4.30180	OSHA/ADA Compliance Officer	11-9199.00	Managers, All Other
4.30190	Pay Equity Officers	13-1072.00	Compensation, Benefits, and Job Analysis Specialists
4.30200	Interpreters and Translators	27-3091.00	Interpreters and Translators
4.30210	Organizational Behaviorists	19-3032.00	Industrial-Organizational Psychologists
4.30220	Occupational Analysts	13-1072.00	Compensation, Benefits, and Job Analysis Specialists
4.30230	Compensation, Benefits and Job Analyst Specialists	13-1072.00	Compensation, Benefits, and Job Analysis Specialists
4.30240	Human Resources Information Systems Specialists	15-1051.00	Information systems specialist
4.30250	Meeting and Convention Planners	13-1121.00	Meeting and Convention Planners
4.30260	Employment Interviewers, Private or Public Employment Service	13-1071.01	Employment Interviewers, Private or Public Employment Service
4.30270	Personnel Recruiters	13-1071.01	Employment Interviewers, Private or Public Employment Service
4.30280	Human Resources Assistants	13-1071.01	Employment Interviewers, Private or Public Employment Service
4.30290	Payroll Professional	13-1072.00	Compensation, Benefits, and Job Analysis Specialists
4.30300	Assignment Clerks	43-4161.00	Human Resources Assistants, Except Payroll and Timekeeping
4.30310	Identification Clerks	43-4161.00	Human Resources Assistants, Except Payroll and Timekeeping
4.30320	Human Resources Generalist	11-3049.00	Human Resources Managers, All Other
4.30330	Human Resources Clerks	43-4161.00	Human Resources Assistants, Except Payroll and Timekeeping
<b>4.40000</b>	<b>Business Analysis Pathway</b>		
4.40010	Systems Analyst	15-1051.00	Computer Systems Analysts
4.40020	E-Commerce Analyst	19-3021.00	Market Research Analysts
4.40030	Requirements Specialist*	19-3021.00	Market Research Analysts
4.40040	Marketing Analyst	19-3021.00	Market Research Analysts
4.40050	Operations Research Analyst	15-2031.00	Operations Research Analysts
4.40060	Business Consultant	13-1111.00	Management Analysts
4.40070	Business Analyst	13-1111.00	Management Analysts
4.40080	Budget Analyst	13-2031.00	Budget Analysts
4.40090	Product Manager	11-1021.00	General and Operations Managers
4.40100	Price Analyst	13-1111.00	Management Analysts

**Business, Management and Administration Career Cluster: Occupational Specialties and Related O\*NET Occupations, Sequenced  
by Career Pathway and Occupational Specialty Code**

Occupational Specialties		Related SOC/O*NET Occupations	
Code	Title	Code	Title
<b>4.50000</b>	<b>Marketing and Communications Pathway</b>		
4.50020	Assistant Marketing Manager	11-2021.00	Marketing Managers
4.50040	Sales Engineer	41-9031.00	Sales Engineers
4.50050	Sales Manager	11-2022.00	Sales Managers
4.50060	Sales Representative	41-4011.02	Sales Representatives, Chemical and Pharmaceutical
4.50060	Sales Representative	41-4011.03	Sales Representatives, Electrical/Electronic
4.50060	Sales Representative	41-4011.06	Sales Representatives, Instruments
4.50060	Sales Representative	41-4011.04	Sales Representatives, Mechanical Equipment and Supplies
4.50060	Sales Representative	41-4011.05	Sales Representatives, Medical
4.50060	Sales Representative	41-4012.00	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products
4.50060	Sales Representative	41-4011.00	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products
4.50070	Broker	41-9021.00	Real Estate Brokers
4.50080	Agents	41-9022.00	Real Estate Sales Agents
4.50080	Agents	41-3021.00	Insurance Sales Agents
4.50090	Assistant Store Manager	11-1021.00	General and Operations Managers
4.50100	Department Manager	11-1021.00	General and Operations Managers
4.50110	Assistant Department Manager	11-1021.00	General and Operations Managers
4.50120	Salesperson	41-2031.00	Retail Salespersons
4.50130	Customer Service Supervisor	43-4051.00	Customer Service Representatives
4.50140	Customer Service Consultant	43-4051.00	Customer Service Representatives
4.50150	Counter Person	41-2021.00	Counter and Rental Clerks
4.50150	Counter Person	35-3022.00	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop
4.50160	Customer Service Clerk	43-4051.00	Customer Service Representatives
4.50170	Product Manager	11-1021.00	General and Operations Managers
4.50180	Project Manager	11-1021.00	General and Operations Managers
4.50190	Research and Development Manager	11-9041.00	Engineering Managers
4.50200	Research and Management Supervisor	11-9121.00	Natural Sciences Managers
4.50210	International Marketing Manager and Supervisor	11-2021.00	Marketing Managers

**Business, Management and Administration Career Cluster: Occupational Specialties and Related O\*NET Occupations, Sequenced  
by Career Pathway and Occupational Specialty Code**

Occupational Specialties		Related SOC/O*NET Occupations	
Code	Title	Code	Title
4.50210	International Marketing Manager and Supervisor	11-2022.00	Sales Managers
4.50220	International Merchandising Manager and Supervisor	11-2021.00	Marketing Managers
4.50220	International Merchandising Manager and Supervisor	11-2022.00	Sales Managers
4.50230	Marketing Manager	11-2021.00	Marketing Managers
4.50240	Property, Real Estate and Association Manager and Supervisor	11-9141.00	Property, Real Estate, and Community Association Managers
4.50250	Small Business Owner and Entrepreneur	11-1021.00	General and Operations Managers
4.50260	E-commerce Manager and Entrepreneur	11-2021.00	Marketing Managers
4.50270	Wholesale and Retail buyer	13-1022.00	Wholesale and Retail Buyers, Except Farm Products
4.50280	International Distribution Manager	11-2021.00	Marketing Managers
4.50290	Warehouse Manager	11-1021.00	General and Operations Managers
4.50300	Logistics Manager/Supervisor	13-1081.00	Logisticians
4.50310	Logistics Manager/Coordinator	13-1081.00	Logisticians
4.50320	Market Researcher	19-3021.00	Market Research Analysts
4.50330	Marketing Information Manager	11-2021.00	Marketing Managers
4.50340	Public Relations Specialist	27-3031.00	Public Relations Specialists
4.50350	Public Relations Writer	27-3031.00	Public Relations Specialists
4.50360	Copywriter	27-3043.04	Copy Writers
4.50370	Media coordinator	27-3031.00	Public Relations Specialists
4.50380	Art Director	27-1011.00	Art Directors
4.50390	Graphic Designer	27-1024.00	Graphic Designers
4.50400	Event Manager	11-2011.00	Advertising and Promotions Managers
4.50410	Advertising Salesperson	41-3011.00	Advertising Sales Agents
4.50420	Route Salesperson	53-3031.00	Driver/Sales Workers
4.50430	Distribution Worker	53-7062.00	Laborers and Freight, Stock, and Material Movers, Hand
4.50440	Wholesale ,Freight, Stocking, Handling, Material Moving and Packing Worker	53-7062.00	Laborers and Freight, Stock, and Material Movers, Hand
4.50450	Traffic, Shipping, and Receiving Clerk	43-5071.00	Shipping, Receiving, and Traffic Clerks

**Business, Management and Administration Career Cluster: Occupational Specialties and Related O\*NET Occupations, Sequenced  
by Career Pathway and Occupational Specialty Code**

Occupational Specialties		Related SOC/O*NET Occupations	
Code	Title	Code	Title
4.50460	Demonstrators and Product Promoter	41-9011.00	Demonstrators and Product Promoters
4.50470	Retail Salespeople and Associate	41-2031.00	Retail Salespersons
4.50480	Telemarketer	41-9041.00	Telemarketers
<b>4.60000</b>	<b>Administrative and Information Support Pathway</b>		
4.60010	Administrative Assistant	43-6011.00	Executive Secretaries and Administrative Assistants
4.60020	Executive Assistant	43-6011.00	Executive Secretaries and Administrative Assistants
4.60040	Office Manager	43-1011.02	First-Line Supervisors, Administrative Support
4.60050	Administrative Support	43-1011.02	First-Line Supervisors, Administrative Support
4.60060	Medical Front Office Assistant	31-9092.00	Medical Assistants
4.60070	Information Assistant	43-6011.00	Executive Secretaries and Administrative Assistants
4.60080	Desktop Publisher	43-9031.00	Desktop Publishers
4.60090	Customer Service Assistant	43-4051.00	Customer Service Representatives
4.60100	Data Entry Specialists	43-9021.00	Data Entry Keyers
4.60110	Receptionist	43-4171.00	Receptionists and Information Clerks
4.60120	Communications Equipment Operator	43-2000.00	Communications Equipment Operators
4.60130	Computer Operator	43-9011.00	Computer Operators
4.60140	Court Reporter	23-2091.00	Court Reporters
4.60150	Stenographer	43-9022.00	Word Processors and Typists
4.60160	Dispatcher	43-5032.00	Dispatchers, Except Police, Fire, and Ambulance
4.60170	Shipping and Receiving Personnel	43-5071.00	Shipping, Receiving, and Traffic Clerks
4.60180	Records Processing Occupations including Library Assistant and Order Processor	43-9022.00	Word Processors and Typists
4.60180	Records Processing Occupations including Library Assistant and Order Processor	43-4121.00	Library Assistants, Clerical
4.60180	Records Processing Occupations including Library Assistant and Order Processor	43-4151.00	Order Clerks
4.60180	Records Processing Occupations including Library Assistant and Order Processor	43-5081.04	Order Fillers, Wholesale and Retail Sales
4.60190	Word Processor	43-9022.00	Word Processors and Typists

**Business, Management and Administration Career Cluster: Occupational Specialties and Related O\*NET Occupations, Sequenced  
by Career Pathway and Occupational Specialty Code**

Occupational Specialties		Related SOC/O*NET Occupations	
Code	Title	Code	Title
4.60200	Typists	43-9022.00	Word Processors and Typists
4.60210	Medical Transcriptionist	31-9094.00	Medical Transcriptionists
4.60220	Legal Secretaries	43-6012.00	Legal Secretaries
4.60230	Paralegals	23-2011.00	Paralegals and Legal Assistants



**Section V – Cluster Profile  
Advisory Committee List**



# Career Cluster Profile

**Cluster Name:** Business, Management & Administration

**Project Lead State:** South Carolina

**Project Lead State Contact Information:**

Anthony L. Dillon, Project Director  
South Carolina Department of Education  
924 Rutledge Building  
1429 Senate Street  
Columbia, SC 29201  
Phone: (803) 734-3826  
tdillon@sde.state.sc.us

Bob Couch, State Director  
South Carolina Department of Education  
924 Rutledge Building, Room 912A  
1429 Senate Street  
Columbia, SC 29201  
Phone: (803) 734-8410  
jcouch@sde.state.sc.us

**Cluster Coordinators:** Marsha Daves

**Cluster Definition:** Business, Management and Administration careers encompass planning, organizing, directing and evaluating business functions essential to efficient and productive business operations. Business Management and Administration career opportunities are available in every sector of the economy.

**Cluster Pathways:** Management, Business Financial Management & Accounting, Human Resources, Business Analysis, Marketing, Administrative & Information Support.

**Cluster Partners:** List attached.

**Number of cluster partners in each of the following categories:**

<b>Postsecondary Education:</b>	<u>7</u>
<b>Secondary Education:</b>	<u>5</u>
<b>Business &amp; Industry</b>	<u>9</u>
<b>Labor</b>	<u>0</u>
<b>Associations</b>	<u>6</u>
<b>Government Agencies</b>	<u>11</u>

**Deliverable #1: Business, Management, & Administration Cluster Advisory Committee (CAC) Members**  
*(Names of Executive members are indicated in bold)*  
 Updated 8/20/02

<b>Name</b>	<b>Job Title</b>	<b>Organization/ Company/School</b>	<b>Address</b>	<b>City</b>	<b>State, ZIP</b>	<b>Phone</b>	<b>E-mail</b>	<b>Pathway</b>
<b>Albaugh, Tom</b>	Adjunct Instructor	Columbus State Community College	851 Club Drive	Mt. Vernon	OH 43050	(740) 392-1953	talbaugh@cscoc.edu	Management
<b>Baily, Ann</b>	Business Education	VT Department of Education	120 State Street	Montpelier	VT 05620	(802) 828-5138	abailey@doe.state.vt.us	Administrative & Information Support
Bell, Toni	Teacher	Williston State College	Box 1326	Williston	ND 58802-1326	(701) 774-4207	Helen.bell@wsc.ndak.edu	Management
Briscoe, Melissa	Technical Writer	Briscoe Consulting	6429 Stone River Road	Bradenton	FL 34201	(941) 755-1005 (941) 447-1006	Mbrisco1@tampabay.rr.com	
<b>Coffey, Tim</b>	Chair, National Advisory Board	DECA	1908 Association Drive	Reston	VA 20191-1594	(703) 860-5000	Tim_coffey@deca.org	Marketing
Cooper, Ann	Vice President of Academic Affairs	Central Carolina Technical College	506 North Guignard Drive	Sumter	SC 29150	(803) 778-6636	cooperaa@ccctc.sumtec.sc.us	Administrative & Information Support
<b>Couch, Bob</b>	State Director	SC Department of Education	1429 Senate Street	Columbia	SC 29201	(803) 734-8410	jcouch@sde.state.sc.us	
<b>Daves, Marsha</b>	Career Cluster Coordinator	OK Dept of Career Tech Education	1500 W 7 <sup>th</sup> Avenue	Stillwater	OK 74074	(405) 743-6881	mdave@careerc.tlusters.org	
Davis, Ray	Education Associate	SC Department of Education	912 D Rutledge Building 1429 Senate St	Columbia	SC 29201	(803) 734-3825	rbdavis@sde.state.sc.us	Management
<b>Dillon, Tony</b>	Education Associate	SC Department of Education	1429 Senate Street	Columbia	SC 29201	(803) 734-3826	tjdillon@aol.com	Business Financial Management & Accounting
Gagnon, Russ	Teacher	Minot State University	500 University Avenue	Minot	ND 58707-2215	(701) 858-3207	Gagnon@misu.ndak.edu	Business Financial Management & Accounting
Gatlin, Rod	President	Software Express	4128 A South Blvd	Charlotte	NC 28209	(800) 527-7638 x227 (704) 522-7638	Rgatlin@swexpress.com	Marketing
Gleason, James	President	MarkED	1375 King Ave P.O. Box 12279	Columbus	OH 43212-0279	(800) 448-0398	Gleason@mark-ed.com	Marketing
<b>Govora, Michele</b>	Business and Marketing Education Advisor	Pennsylvania Department of Education	333 Market Street	Harrisburg	PA 17126	(717) 787-8804	mgovora@state.pa.us	Human Resources
Greene, Cynthia	Business Education	GA Department of Education	1752 Twin Towers East	Atlanta	GA 30334	(404) 656-2800 or (404) 657-8307	cygreene@doe.k12.ga.us	Management
Gressette, Dawn	HS Teacher Marketing	Calhoun County High School	Route 4, Box 30	St. Matthews	SC 29135	(803) 655-5948	Dgressette@ccps.calhoun.k12.sc.us	Marketing

Name	Job Title	Organization/ Company/School	Address	City	State, ZIP	Phone	E-mail	Pathway
Haile, Tammy	Administrator	Chesterfield County Schools	Rt #1 Box 1C	Ruby	SC 29741	(843) 634-5589	Thaile@chesterfield.k12.sc.us	Human Resources
Hedrick, Jack	Director of Educational Programs	Business Professionals of America (BPA)	5454 Cleveland Avenue	Columbus	OH 43231	(614) 895-7277	Jack.Hedrick@ix.netcom.com	Marketing
Hudson, William	Consultant	American Airline Travel Academy	4501 Hwy 360	DFW Airport	TX 75261	(800) 445-1114 x74525 (817) 967-4525	William.Hudson@a.com	Human Resources
Imel, Fred	President/CPA	James F. Imel, PC	541 Couch Dr	Oklahoma City	OK 73102-2207	(405) 236-1122	mikeipc@aol.com	Business Financial Management & Accounting
<b>Keylon, Michelle</b>	Program Administrator	OK Department of Career & Technology Education	1500 W 7 <sup>th</sup> Avenue	Stillwater	OK 74074	(405) 743-5426	mkeyl@okcareertech.org	Business Financial Management & Accounting
Larson, Debra	Business Education	Illinois Department of Education	100 N.First St N-242	Springfield	IL 62777-0001	(217) 782-2826	dlarson@isbe.net	Administrative & Information Support
Long, Ellen	Teacher	Colony High School	HCOI Box 6048	Palmer	AK 99645	(907) 746-9544	nejblong@hotmail.com	Business Analysis
Rhodes, Monty	Account Specialist	Erskine Young	Suite 2800, 600 Peachtree St	Atlanta	GA 30308	(404) 874-8300	MontyFBLA@aol.com	Business Financial Management & Accounting
Robertson, Horace	Director	Consortium for Entrepreneurship Education	1120 Balmoral Drive	Cary	NC 27511	(614) 486-6538 (919) 467-9933	www.entre-ed.org or hroberts@dpi.state.nc.us	Management
<b>Russello, Mike</b>	CEO & Co-Founder	Brainbench, Inc.	14901 Bogle Drive	Chantilly	VA 20151	(703) 437-4800	mike@brainbench.com	Business Analysis
Satpathy, Ashok	Professor	SC State University	300 College St. NE P.O. Box 7731	Orangeburg	SC 29117	(803) 516-4931 or (803) 536-8072	Asatpathy@scsu.edu	Business Analysis
Scholl, Kelly	Business Education	North Dakota Dept of Education	600 E Boulevard Ave., Dept 270	Bismarck	ND 58505-0601	(701) 328-2286	kscholl@state.nd.us	Human Resources
<b>Seehorn, Deborah</b>	Administrator	North Carolina Department of Education	301 N Wilmington St	Raleigh	NC 27601	(919) 807-3871	dseehom@dpi.state.nc.us	Business Analysis
Shaffer, Amy	Projects Manager	Concurrent Technologies	4 Indigo Run Drive #1023	Hilton Head Island	SC 29926	(843) 682-3188	shaflera@ctc.com	Management
Smalls, Barbara	Administration	FBLA-PBL, Inc.	1912 Association Drive	Reston	VA 20191-1591	(703) 860-3334 X123	General@fbla.org or bsmall@fbla.org	Administrative & Information Support
Swafford, Ann	Post-Secondary Teacher	University of South Carolina	College of HRSM	Columbia	SC 29208	(803) 777-4691 w	aswofford@gwm.sc.edu	Administrative & Information Support
Tretchel, Janet	Executive Director	National Business Education Association (NBEA)	1914 Association Drive	Reston	VA 20191-1596	(703) 860-8300	www.nbea.org	Business Financial Management & Accounting
Weaver, Tina	Post-Secondary Teacher	University of South Carolina	College of HRSM	Columbia	SC 29208	(803) 777-6721 w	Chweaver@gwm.sc.edu	Administrative & Information Support
Wertzberger, Chris		Midfirst Bank	4205 Mellow Hill	Oklahoma City	OK 73120	(405) 426-1804 (w)	Chris.Wertzberger@midfirst.com	Business Financial Management &

Name	Job Title	Organization/ Company/School	Address	City	State, ZIP	Phone	E-mail	Pathway
Williamson, Marey Susan	Teacher	Brookland-Cayce High School	1300 State Street	Cayce	SC 29033	(803) 791- 5000	marys@lex2.k12.sc. us	Accounting Administrative & Information Support
Zahner, Karla	HS Teacher Business	Skyline High School	845 S Crismon	Mesa	AZ 85208	(480) 472- 9541	Kkzahner@mpsaz.o rg	Administrative Support
Zhu, Min	CEO	Web-Ex	307W Tasman Drive	San Jose	CA 95134	(408)435- 7000	www.webex.com	Business Analysis

## **Section VI – Credentials**



## Deliverable #2: Business, Management, & Administration Sample List of Existing Credentials (includes education and industry certificates, as well as postsecondary degree options) Updated 8/12/02

### Education and Industry Licenses

Title/Type/Descriptor of Licensing Program	Licensing Organization	Source for Contact Information
Accountants & Auditors	(Varies from State to State)	<a href="http://www.careerfools.org">www.careerfools.org</a> Search under <i>Career Tools: Licensing Occupations</i> by specific Business, Management & Administration occupations, by state or by agency.
Accountants, & Auditors & Other Financial Specialists	(Varies from State to State)	
Adjustment Clerks	(Varies from State to State)	
Administrative Services Managers	(Varies from State to State)	
Bookkeeping, Accounting & Auditing Clerks	(Varies from State to State)	
Employment Interviewers, Private or Public Employment Services	(Varies from State to State)	
First Line Supervisors & Managers-Clerical & Administrative Support Workers	(Varies from State to State)	
General Managers & Top Executives	(Varies from State to State)	
Management Analysts	(Varies from State to State)	
Personnel, Training & Labor Relations Managers	(Varies from State to State)	
Sales Agents, Selected Business Services	(Varies from State to State)	
Typists, including Word Processing	(Varies from State to State)	
All other First Line Supervisors & Managers/Supervisors	(Varies from State to State)	
All Other Management Support Workers	(Varies from State to State)	
All Other Managers & Administrators	(Varies from State to State)	
All Other Supervisors & Managers	(Varies from State to State)	

### Education and Industry Certificates

Title/Type/Descriptor of Certification Program	Issuing Organization	Source for Contact Information
Accounts Payable Fundamentals	Brainbench	<a href="http://www.brainbench.com/xml/bb/homepage.xml">http://www.brainbench.com/xml/bb/homepage.xml</a>
Accounts Receivable/Billing Fundamentals	Brainbench	<a href="http://www.brainbench.com/xml/bb/homepage.xml">http://www.brainbench.com/xml/bb/homepage.xml</a>
Accreditation in Public Relations	Public Relations Society of America	<a href="http://www.prsa.org/">http://www.prsa.org/</a>
Accredited Business Accountant	Accredited Council for Accountancy and Taxation International Association of Business Communicators	<a href="http://www.acateredentials.org/accredited_business_accountant.htm">http://www.acateredentials.org/accredited_business_accountant.htm</a> <a href="http://www.iabc.com/about/accredit/abc.htm">http://www.iabc.com/about/accredit/abc.htm</a>
Accredited Business Communicator	The Association for Legal Professionals	<a href="http://accreditationboard.org/">http://accreditationboard.org/</a>
Accredited Legal Professional	Accredited Council for Accountancy and Taxation	<a href="http://www.acateredentials.org/accredited_tax_advisor.htm">http://www.acateredentials.org/accredited_tax_advisor.htm</a>
Accredited Tax Advisor	Accredited Council for Accountancy and Taxation	<a href="http://www.acateredentials.org/accredited_tax_preparersm.htm">http://www.acateredentials.org/accredited_tax_preparersm.htm</a>
Accredited Tax Preparer	American Translators Association	
Accredited Translator	American Management Association	
Administrative Excellence	American Management Association	<a href="http://www.amanet.org/seminars/certificate/index.htm">http://www.amanet.org/seminars/certificate/index.htm</a>
Ariba Buyer 6.1 Certification	Brainbench	<a href="http://www.brainbench.com/xml/bb/homepage.xml">http://www.brainbench.com/xml/bb/homepage.xml</a>
Certificate in Accounting & Finance	American Management Association	<a href="http://www.amanet.org/seminars/certificate/index.htm">http://www.amanet.org/seminars/certificate/index.htm</a>

Certification in Control Self Assessment	Institute of Internal Auditors	<a href="http://www.rugers.edu/Accounting/raw/iaa/">http://www.rugers.edu/Accounting/raw/iaa/</a>
Certification in Marketing & Sales	Certified Marketing Services International, Inc.	<a href="http://www.mpiweb.org/aboutmpi/home/default.asp">http://www.mpiweb.org/aboutmpi/home/default.asp</a>
Certification in Meeting Management	Certified Marketing Services International, Inc.	<a href="http://cob.jmu.edu/icpm/">http://cob.jmu.edu/icpm/</a>
Certification in Sales	Institute of Certified Professional Managers	<a href="http://iaap-hq.org">http://iaap-hq.org</a>
Certified Administrative Manager	International Association of Administrative Professionals	<a href="http://www.asaenet.org/CAE/home/0,1790,,00.html">http://www.asaenet.org/CAE/home/0,1790,,00.html</a>
Certified Administrative Professional	American Society of Association Executives	<a href="http://www.worldatwork.org/Content/Prodev/prodev-certification-frame.html">http://www.worldatwork.org/Content/Prodev/prodev-certification-frame.html</a>
Certified Association Executive	American Compensation Association	<a href="http://www.aipb.org/certification_program.html">http://www.aipb.org/certification_program.html</a>
Certified Benefits Professional	American Institute of Professional Bookkeepers	<a href="http://www.marketing.org/frames/cbc-entry.omm">http://www.marketing.org/frames/cbc-entry.omm</a>
Certified Bookkeeper Program	Business Marketing Association	<a href="http://www.afponline.org/Professional_Development/Certification/certification.html">http://www.afponline.org/Professional_Development/Certification/certification.html</a>
Certified Business Communicator	Association for Financial Professionals	<a href="http://www.worldatwork.org/Content/Prodev/prodev-certification-frame.html">http://www.worldatwork.org/Content/Prodev/prodev-certification-frame.html</a>
Certified Cash Manager	American Compensation Association	<a href="http://users.erols.com/scea/index.html">http://users.erols.com/scea/index.html</a>
Certified Compensation Professional	Society of Cost Estimating and Analysis	<a href="http://www.dmia.com/">http://www.dmia.com/</a>
Certified Cost Estimator/Analyst	Document Management Industries Association	<a href="http://www.iaem.com/certification.html">http://www.iaem.com/certification.html</a>
Certified Document Consultant	International Association of Emergency Managers	<a href="http://www.eapassn.org/public/pages/index.cfm?pageid=332">http://www.eapassn.org/public/pages/index.cfm?pageid=332</a>
Certified Emergency Manager	Employee Assistance Professional Association	<a href="http://ifebp.org/cebs/cedesign.asp">http://ifebp.org/cebs/cedesign.asp</a>
Certified Employee Assistance Professional	International Foundation of Employee Benefits Plan	<a href="http://www.aecenter.org/certification/">http://www.aecenter.org/certification/</a>
Certified Employee Benefit Specialist	The Association of Energy Engineers	<a href="http://www.bfma.org/certification/defined.htm">http://www.bfma.org/certification/defined.htm</a>
Certified Energy Manager	Business Forms Management Association	<a href="http://www.dmia.com/">http://www.dmia.com/</a>
Certified Form Systems Professional	Document Management Industries Association	<a href="http://www.utep.edu/ic/cfe.htm">http://www.utep.edu/ic/cfe.htm</a>
Certified Forms Consultant	Institute of Certified Franchise Executives	<a href="http://www.rugers.edu/Accounting/raw/iaa/">http://www.rugers.edu/Accounting/raw/iaa/</a>
Certified Franchise Executive	Institute of Internal Auditors	<a href="http://www.aipb.org/certification_program.html">http://www.aipb.org/certification_program.html</a>
Certified Government Auditing Professional	Help Desk Institute	<a href="http://www.aipb.org/certification_program.html">http://www.aipb.org/certification_program.html</a>
Certified Help Desk Analyst	Help Desk Institute	<a href="http://www.rugers.edu/Accounting/raw/ima">http://www.rugers.edu/Accounting/raw/ima</a>
Certified Help Desk Director	Help Desk Institute	<a href="http://www.rugers.edu/Accounting/raw/iaa/">http://www.rugers.edu/Accounting/raw/iaa/</a>
Certified Help Desk Manager	Help Desk Institute	<a href="http://www.ecommercemonster.com/aafma_index.html">http://www.ecommercemonster.com/aafma_index.html</a>
Certified in Financial Management	Institute of Management Accountants	<a href="http://www.nala.org/cert.htm#">http://www.nala.org/cert.htm#</a>
Certified Internal Auditor	Institute of Internal Auditors	<a href="http://www.nali.com/">http://www.nali.com/</a>
Certified International Financier	International Society of Financials	<a href="http://www.nalis.org/html/pls.htm">http://www.nalis.org/html/pls.htm</a>
Certified Investment Management Analyst	American Academy of Financial Management	<a href="http://www.rugers.edu/Accounting/raw/ima">http://www.rugers.edu/Accounting/raw/ima</a>
Certified Legal Assistant	National Association of Legal Assistants	<a href="http://cob.jmu.edu/icpm/">http://cob.jmu.edu/icpm/</a>
Certified Legal Assistant Specialist	National Association of Legal Assistants	<a href="http://www.smei.org/">http://www.smei.org/</a>
Certified Legal Investigator	National Association of Legal Assistants	<a href="http://www.aama-nl.org/cma_def.html">http://www.aama-nl.org/cma_def.html</a>
Certified Legal Secretary	National Association of Legal Investigators	<a href="http://www.mpiweb.org/aboutmpi/home/default.asp">http://www.mpiweb.org/aboutmpi/home/default.asp</a>
Certified Management Accountant	National Association of Legal Secretaries	<a href="http://www.americanpayroll.org/certi.html">http://www.americanpayroll.org/certi.html</a>
Certified Manager	Institute of Management Accountants	<a href="http://ifebp.org/cebs/cedesign.asp">http://ifebp.org/cebs/cedesign.asp</a>
Certified Marketing Executive	Institute of Certified Professional Managers	<a href="http://mapsweb.org/educate.htm">http://mapsweb.org/educate.htm</a>
Certified Medical Assistant	Sales & Marketing Executives International	<a href="http://www.parw.com/home.html">http://www.parw.com/home.html</a>
Certified Meeting Professional	American Association of Medical Assistants	<a href="http://iaap-hq.org">http://iaap-hq.org</a>
Certified Payroll Professional	Meeting Professional International	<a href="http://www.smgs.org/mrc/cert_frame.htm">http://www.smgs.org/mrc/cert_frame.htm</a>
Certified Pension Consultant	American Payroll Association	<a href="http://www.aicpa.org">http://www.aicpa.org</a>
Certified Personnel Consultant	International Foundation of Employee Benefits Plan	<a href="http://www.asqc.org/education/cert.html">http://www.asqc.org/education/cert.html</a>
Certified Professional Consultant	National Association of Personnel Services	
Certified Professional Resume Writer	Professional Association of Resume Writers	
Certified Professional Secretary	International Association of Administrative Professionals	
Certified Professional Services Marketer	Society of Marketing Professional Services	
Certified Public Accountant	American Institute of Certified Public Accountants	
Certified Quality Auditor	American Society for Quality Control	

Certified Quality Manager	American society for Quality Control	<a href="http://asqc.org/education/cert.html">http://asqc.org/education/cert.html</a>
Certified Realtime Reporter	National Court Reporter Association	<a href="http://www.verbatimreporters.com/pd/reg_cert/reg_rpr.htm">http://www.verbatimreporters.com/pd/reg_cert/reg_rpr.htm</a>
Certified Records Manager	Institute of Certified Records Managers	<a href="http://www.icrm.org/">http://www.icrm.org/</a>
Certified Relocation Professional	Employee Relocation Council	<a href="http://www.erc.org/PERC_USA/CRP_Designation_Ctr.shtml">http://www.erc.org/PERC_USA/CRP_Designation_Ctr.shtml</a>
Certified Sales Executives	Sales & Marketing Executives International	<a href="http://www.smei.org/">http://www.smei.org/</a>
Certified Speaking Professional	Professional Secretaries International	<a href="http://www.main.org/psi/index.html">http://www.main.org/psi/index.html</a>
Certified Temporary Staffing Specialist	National Association of Personnel Services	<a href="http://mapsweb.org/educate.htm">http://mapsweb.org/educate.htm</a>
Chartered Accountant	Association of Chartered Accountants in the US	<a href="http://www.acaus.org/info/ca.html">http://www.acaus.org/info/ca.html</a>
Chartered Financial Analyst	Association of Investment Management & Research	
Corel Certified Expert User	Microsoft Corporation	<a href="http://www.asaenet.org/CAE/home/0,1790,,00.html">http://www.asaenet.org/CAE/home/0,1790,,00.html</a>
Corel Certified Proficient User	Microsoft Corporation	<a href="http://www.asaenet.org/CAE/home/0,1790,,00.html">http://www.asaenet.org/CAE/home/0,1790,,00.html</a>
Customer Satisfaction	American Management Association	<a href="http://www.amanet.org/seminars/certificate/index.htm">http://www.amanet.org/seminars/certificate/index.htm</a>
Global Remuneration	World at Work	<a href="http://worldatwork.org/content/prodev/prodev-certification-frame.htm">http://worldatwork.org/content/prodev/prodev-certification-frame.htm</a>
Global Remuneration Administration	World at Work	<a href="http://worldatwork.org/content/prodev/prodev-certification-frame.htm">http://worldatwork.org/content/prodev/prodev-certification-frame.htm</a>
Group Benefits Associate	International Foundation of Employee Benefit Plans	<a href="http://ifebp.org/cebs/cedesign.asp">http://ifebp.org/cebs/cedesign.asp</a>
Java Platform Certification	Sun Microsystems	<a href="http://suned.sun.com/US/certification/">http://suned.sun.com/US/certification/</a>
MacIntosh OS 8 Navigation Certification	Brambench	<a href="http://www.brambench.com/xml/bb/homepage.xml">http://www.brambench.com/xml/bb/homepage.xml</a>
Microsoft Certified Database Administrator	Microsoft Corporation	<a href="http://www.asaenet.org/CAE/home/0,1790,,00.html">http://www.asaenet.org/CAE/home/0,1790,,00.html</a>
Microsoft Certified Professional	Microsoft Corporation	<a href="http://www.asaenet.org/CAE/home/0,1790,,00.html">http://www.asaenet.org/CAE/home/0,1790,,00.html</a>
Microsoft Certified Solution Developer	Microsoft Corporation	<a href="http://www.asaenet.org/CAE/home/0,1790,,00.html">http://www.asaenet.org/CAE/home/0,1790,,00.html</a>
Microsoft Officer User Specialist	Microsoft Corporation	<a href="http://www.asaenet.org/CAE/home/0,1790,,00.html">http://www.asaenet.org/CAE/home/0,1790,,00.html</a>
Microsoft Professional + Site Building	Microsoft Corporation	<a href="http://www.asaenet.org/CAE/home/0,1790,,00.html">http://www.asaenet.org/CAE/home/0,1790,,00.html</a>
MS Excel 97 Certification	Brambench	<a href="http://www.brambench.com/xml/bb/homepage.xml">http://www.brambench.com/xml/bb/homepage.xml</a>
MS Office Specialist	Brambench	<a href="http://www.brambench.com/xml/bb/homepage.xml">http://www.brambench.com/xml/bb/homepage.xml</a>
MS Powerpoint 97 Certification	Brambench	<a href="http://www.brambench.com/xml/bb/homepage.xml">http://www.brambench.com/xml/bb/homepage.xml</a>
MS Word 97 Certification	Brambench	<a href="http://www.brambench.com/xml/bb/homepage.xml">http://www.brambench.com/xml/bb/homepage.xml</a>
Payroll Fundamentals	Brambench	<a href="http://www.brambench.com/xml/bb/homepage.xml">http://www.brambench.com/xml/bb/homepage.xml</a>
Personal Financial Specialist	American Institute of Certified Public Accountants	<a href="http://www.aicpa.org">http://www.aicpa.org</a>
Professional in Human Resources	Human Resource Certification Institute	<a href="http://www.hrci.org/certification/">http://www.hrci.org/certification/</a>
Professional Legal Secretary	National Association of Legal Secretaries	<a href="http://www.nals.org/html/pls.htm">http://www.nals.org/html/pls.htm</a>
Project Management Professional	American Management Association	<a href="http://www.amanet.org/seminars/certificate/index.htm">http://www.amanet.org/seminars/certificate/index.htm</a>
Project Manager	Brambench	<a href="http://www.brambench.com/xml/bb/homepage.xml">http://www.brambench.com/xml/bb/homepage.xml</a>
Qualified Pension Administrator	American Society of Pension Actuaries	<a href="http://www.aspa.org/educationpages/exam_series.htm">http://www.aspa.org/educationpages/exam_series.htm</a>
Registered Diplomat Reporter	National Court Reporter Association	<a href="http://www.verbatimreporters.com/pd/reg_cert/reg_rpr.htm">http://www.verbatimreporters.com/pd/reg_cert/reg_rpr.htm</a>
Registered Merit Reporter	National Court Reporter Association	<a href="http://www.verbatimreporters.com/pd/reg_cert/reg_rpr.htm">http://www.verbatimreporters.com/pd/reg_cert/reg_rpr.htm</a>
Registered Professional Reporter	National Court Reporter Association	<a href="http://www.verbatimreporters.com/pd/reg_cert/reg_rpr.htm">http://www.verbatimreporters.com/pd/reg_cert/reg_rpr.htm</a>
Retirement Plans Associate	International Foundation of Employee Benefit Plans	<a href="http://ifebp.org/cebs/cedesign.asp">http://ifebp.org/cebs/cedesign.asp</a>
Senior Certified Relocation Professional	Employee Relocation Council	<a href="http://www.erc.org/PERC_USA/CRP_Designation_Ctr.shtml">http://www.erc.org/PERC_USA/CRP_Designation_Ctr.shtml</a>
Senior Professional in Human Resources	Human Resource Certification Institute	<a href="http://www.hrci.org/certification/">http://www.hrci.org/certification/</a>
Shareholder Value Creation	American Management Association	<a href="http://www.amanet.org/seminars/certificate/index.htm">http://www.amanet.org/seminars/certificate/index.htm</a>
SME Certified Professional Salesperson	Sales & Marketing Executives International	<a href="http://www.smei.org/">http://www.smei.org/</a>
SME Certified Professional Salesperson-Distributor Emphasis	Sales & Marketing Executives International	<a href="http://www.smei.org/">http://www.smei.org/</a>
Strategic Management	American Management Association	<a href="http://www.amanet.org/seminars/certificate/index.htm">http://www.amanet.org/seminars/certificate/index.htm</a>

Typing Speed & Accuracy Certification	Brambench	<a href="http://www.brainbench.com/xml/bb/homepage.xml">http://www.brainbench.com/xml/bb/homepage.xml</a>
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### Postsecondary Degree Options

Title/Type/Descriptor of Degree Program	Degree Conferring Organization	Source for Contact Information
Accounting	Colleges and Universities	<a href="http://www.careertools.org">www.careertools.org</a> Search under the topic <i>Training &amp; Education</i>
Accounting Technician	Colleges and Universities	
Administrative Assistant/Secretarial Science, General	Colleges and Universities	
Business	Colleges and Universities	
Business Administration & Management, General	Colleges and Universities	
Business Communications	Colleges and Universities	
Business Marketing/Marketing Management	Colleges and Universities	
Business/Managerial Economics	Colleges and Universities	
Court Reporter	Colleges and Universities	
Enterprise Management & Operation	Colleges and Universities	
Executive Assistant/Secretary	Colleges and Universities	
Finance, General	Colleges and Universities	
General Office/Clerical & Typing Services	Colleges and Universities	
Human Resources Management	Colleges and Universities	
Information Processing/Data Entry Technician	Colleges and Universities	
International Business	Colleges and Universities	
Labor/Personnel Relations & Studies	Colleges and Universities	
Legal Administrative Assistant/Secretary	Colleges and Universities	
Management Information Systems & Business Data Processing, General	Colleges and Universities	
Marketing Management & Research	Colleges and Universities	
Marketing Research	Colleges and Universities	
Medical Administrative Assistant/Secretary	Colleges and Universities	
Office Supervision & Management	Colleges and Universities	
Operations, Management & Supervision	Colleges and Universities	
Organizational Behavior Studies	Colleges and Universities	
Purchasing, Procurement & Contracts Management	Colleges and Universities	
Receptionist	Colleges and Universities	

## **Section VII – Validation Overview/ Results**





## VALIDATION REPORT

### *Background*

Cluster advisory committees made up of business and industry representatives, secondary/postsecondary educators, associations/organizations, government agencies and other stakeholders developed and conducted an initial review of the knowledge and skills statements. From July 15, 2002 through August 15, 2002, the States' Career Clusters Initiative conducted a national online validation of the knowledge and skill statements. The validation rated the degree of commonality and importance of each statement (see tables below). Each Cluster Committee reviewed the knowledge and skill ratings as well as any written responses to a particular statement. Likewise, each committee determined the appropriate action to take with regard to this data.

### **Cluster Question:**

Question #1 : Is the knowledge and skill statement common to all <a href="#">occupations</a> across the cluster ?	Question #2 : Is the knowledge and skill statement important to workplace success and/or further education ?
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### **Pathway Question:**

Question #1 : Is the knowledge and skill statement common to all <a href="#">occupations</a> across the pathway ?	Question #2 : Is the knowledge and skill statement important to workplace success and/or further education ?
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### **Rating Key:**

<p><b>Question #1:</b></p> <p><input type="checkbox"/> Don't Know -N/A</p> <p><input type="checkbox"/> Common to a few (25% or less)</p> <p><input type="checkbox"/> Common to some (25 - 50%)</p> <p><input type="checkbox"/> Common to many (51 - 75%)</p> <p><input type="checkbox"/> Common to most (76 - 100%)</p>	<p><b>Question #2:</b></p> <p><input type="checkbox"/> Don't Know -N/A</p> <p><input type="checkbox"/> Not important</p> <p><input type="checkbox"/> Somewhat important</p> <p><input type="checkbox"/> Important</p> <p><input type="checkbox"/> Critical</p>
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*General Validation Statistics for the Eleven Clusters*

Total Number of Respondents: 1133 completed profiles, 828 completed validation

Number of States/Others Represented: All 50 states/5 other

Overall profiles of respondents:

Organization Type

Business/Industry – 17.3 %

State Agency – 13.4 %

Federal Agency – 2.4 %

Association – 6.2 %

Secondary Education – 36.5 %

Postsecondary Education – 14.1 %

Other – 10.1 %

Average # of Years of Experience: 18.3 years

*Business, Management and Administration Cluster Validation Statistics*

Total Number of Respondents: 76

Number of States/Others Represented: 25

Overall profiles of respondents:

Organization Type

Business/Industry – 7.9 %

State Agency – 15.8 %

Federal Agency – 0 %

Association – 3.9 %

Secondary Education – 17.1 %

Postsecondary Education – 17.1 %

Other – 6.6 %

Average # of Years of Experience: 19 years

# Cluster Responses

Ratings of "Don't Know" are not included in this report.

Question #1: Is the knowledge and skill statement common to all occupations across the cluster?  
 Question #2: Is the knowledge and skill statement important to workplace success and/or further education?

StatementCode	StatementDescription	# Rsp	Q1 Avg	Q1=1	Q1=2	Q1=3	Q1=4	Q2 Avg	Q2=1	Q2=2	Q2=3	Q2=4
<b>Cluster: Business, Management and Administration</b>												
BAC02.01	Comprehend and use reading strategies to learn meaning, technical concepts, vocabulary and follow directions.	67	3.78	0	1	13	53	3.75	0	0	17	50
BAC02.02	Compose and prepare written communications to convey technical concepts and company information.	66	3.50	0	6	21	39	3.50	0	1	31	34
BAC02.03	Interpret verbal and nonverbal messages to enhance communication with co-workers and external customers.	60	3.67	0	6	8	46	3.57	0	2	22	36
BAC02.04	Develop and deliver formal and informal presentations relating to a broad range of business topics.	64	2.83	5	15	30	14	2.98	0	17	31	16
BAC02.05	Exhibit people skills to deal positively with a variety of personalities and diverse individuals.	64	3.75	0	3	10	51	3.70	0	0	19	45
BAC02.06	Apply active listening skills to obtain and clarify information.	64	3.75	0	1	14	49	3.73	0	2	13	49
BAC02.07	Develop and deliver formal and informal presentations relating to a broad range of business topics.	60	2.70	5	17	29	9	2.85	1	18	30	11
BAC02.08	Interpret and use tables, charts and figures to support written and oral communication.	64	2.80	3	22	24	15	3.00	0	11	42	11
BAC02.09	Locate, organize and reference written information from various sources to communicate with co-workers and clients/participants.	62	3.06	1	14	27	20	3.19	0	10	30	22
BAC03.01	Apply accepted problem solving methods to solve business problems.	64	3.42	0	7	23	34	3.42	0	6	25	33
BAC04.01	Use technology based tools to accomplish business services and planning.	63	3.46	0	7	20	36	3.38	0	4	31	28
BAC04.02	Use technology responsibly to apply its functions and understand its impact.	64	3.39	0	5	29	30	3.39	0	2	35	27

StatementCode	StatementDescription	# Rsp	Q1 Avg	Q1=1	Q1=2	Q1=3	Q1=4	Q2 Avg	Q2=1	Q2=2	Q2=3	Q2=4
BAC04.03	Use technology to express ideas and exchange business information.	65	3.51	0	7	18	40	3.43	0	1	35	29
BAC05.01	Examine various types of businesses to understand business organizational structures and systems.	64	2.39	11	24	22	7	2.63	2	28	26	8
BAC05.02	Apply the systems approach to a variety of businesses.	61	2.36	9	27	19	6	2.49	3	30	23	5
BAC05.03	Utilize internal and external resources to manage and improve organizational systems.	63	2.67	6	22	22	13	2.87	0	22	27	14
BAC06.01	Assess workplace conditions to maintain safe and healthful working conditions.	64	3.02	5	15	18	26	3.33	1	5	30	28
BAC06.02	Assess hazards, ergonomics, and surface safety in business environment to organize safety procedures and plan emergency responses.	62	2.63	10	20	15	17	3.13	1	13	25	23
BAC06.03	Identify, safeguard and eliminate causes of combustible materials, fires and emergencies to establish a fire-safe working environment.	61	2.54	13	21	8	19	3.02	5	10	25	21
BAC07.01	Research characteristics of the leadership role to identify expected leadership performance.	63	2.46	11	20	24	8	2.78	2	20	31	10
BAC07.02	Work as a team to develop and implement company vision and goals.	62	3.29	3	7	21	31	3.48	0	2	28	32
BAC07.03	Collaborate with others to accomplish business tasks.	62	3.40	4	6	13	39	3.58	0	3	20	39
BAC08.01	Apply business laws and regulations to business situations.	61	2.80	5	20	18	18	3.21	0	7	34	20
BAC08.02	Exhibit ethical conduct to business negotiations and decisions.	63	3.48	1	7	16	39	3.68	1	0	17	45
BAC09.01	Exhibit positive work behaviors and personal qualities to enhance the work environment.	61	3.70	1	4	7	49	3.82	0	0	11	50
BAC09.02	Identify and explore career opportunities in Business, Management and Administration.	60	2.83	7	16	17	20	2.95	3	12	30	15
BAC09.03	Apply job seeking skills to seek, evaluate, apply for and accept employment.	61	3.51	2	9	6	44	3.61	0	3	18	40

StatementCode	StatementDescription	# Rsp	Q1 Avg	Q1=1	Q1=2	Q1=3	Q1=4	Q2 Avg	Q2=1	Q2=2	Q2=3	Q2=4
BAC09.04	Explain written organizational policies, rules and procedures to help employees perform their jobs.	62	2.85	6	16	21	19	3.10	1	8	37	16
BAC10.01	Use effective communication skills for all modes of business	59	3.61	1	5	10	43	3.73	0	0	16	43
BAC10.08	Employ assessment skills to enhance professional practice.	57	2.96	7	9	20	21	2.96	1	13	30	13
<b>Totals:</b>		<b>1873</b>	<b>3.14</b>	<b>116</b>	<b>359</b>	<b>543</b>	<b>855</b>	<b>3.28</b>	<b>21</b>	<b>250</b>	<b>789</b>	<b>813</b>

# Pathway Response

Ratings of "Don't Know" are not included in this report.

Question #1: Is the knowledge and skill statement common to all occupations within the pathway?  
 Question #2: Is the knowledge and skill statement important to workplace success and/or further education?

StatementCode	StatementDescription	# Rsp	Q1 Avg	Q1=1	Q1=2	Q1=3	Q1=4	Q2 Avg	Q2=1	Q2=2	Q2=3	Q2=4
<b>Cluster: Business, Management and Administration</b>												
BAPA01.01	Develop and implement short and long term strategic plans to manage growth, profit and goals within a specific market segment.	22	2.86	3	5	6	8	3.23	0	4	9	9
BAPA01.02	Evaluate employee performance to provide timely and appropriate responses to personnel issues.	22	2.95	3	4	6	9	3.32	1	2	8	11
BAPA01.03	Organize the various business services to address all components of the company.	22	2.82	3	6	5	8	3.09	0	5	10	7
BAPA02.01	Assume appropriate roles to both create, deliver, receive and manage business communications in the workplace.	22	3.45	1	1	7	13	3.64	1	1	3	17
BAPA02.02	Exhibit effective communication skills for all modes of business	22	3.55	0	2	6	14	3.86	0	1	1	20
BAPA03.01	Supervise and direct personnel to achieve completion of projects and company goals.	22	3.05	2	4	7	9	3.45	0	2	8	12
BAPA03.02	Supervise and direct personnel to complete company goals and projects.	21	3.14	2	2	8	9	3.38	1	2	6	12
BAPA04.01	Develop and implement plans and standard operating procedures to assure maintenance of facilities, equipment and supplies.	21	2.76	4	4	6	7	3.33	0	2	10	9
BAPA05.01	Utilize performance standards to monitor progress of personnel, finance and other functional areas.	22	2.95	2	5	7	8	3.23	1	1	12	8
BAPA06.01	Evaluate opportunities to determine potential company changes and implement strategies for catalyzing and guiding changes.	22	2.55	3	8	7	4	3.00	0	5	12	5
<b>Cluster: Business, Management and Administration</b>												
BAPB01.01	Apply computational skills in written documents.	34	3.56	0	3	9	22	3.59	0	0	10	23
<b>Pathway: Business Financial Management &amp; Accounting</b>												

StatementCode	StatementDescription	# Rsp	Q1 Avg	Q1=1	Q1=2	Q1=3	Q1=4	Q2 Avg	Q2=1	Q2=2	Q2=3	Q2=4
BAPB01.02	Apply computational skills to computerized financial documents.	33	3.45	0	7	4	22	3.39	0	3	14	16
BAPB02.01	Utilize organizational skills to perform accounting and financial operations.	32	3.34	0	6	9	17	3.34	0	2	17	13
BAPB03.01	Apply federal, state and local laws, rules and regulations to guide storage and retention of financial records.	32	3.22	3	5	6	18	3.41	0	5	9	18
BAPB03.02	Identify, apply and keep current with laws and regulations that affect financial and accounting practices.	32	3.31	2	5	6	19	3.47	0	3	7	21
BAPB04.01	Analyze and interpret financial data to produce accurate reports.	33	3.30	2	3	11	17	3.52	0	1	14	18
BAPB05.01	Examine elements of an accounting system to acquire skills in applying good accounting practices.	33	3.15	1	6	13	13	3.39	0	1	18	14
BAPB05.02	Record business transactions to track business activities.	33	3.21	2	7	6	18	3.36	0	3	15	15
BAPB05.03	Merge required documents to report financial information.	33	2.88	3	4	20	6	3.06	0	4	23	6
<b>Cluster: Business, Management and Administration</b>		<b>Pathway: Human Resources</b>										
BAPC01.01	Manage an organization's benefits program to service employees with options and benefits.	19	2.74	0	9	6	4	3.00	0	3	13	3
BAPC01.02	Coordinate and administer a wage and salary program for the company.	19	2.58	3	6	6	4	3.11	1	3	8	7
BAPC02.01	Plan, develop and conduct training programs for a company.	18	2.83	1	5	8	4	3.22	0	1	12	5
BAPC02.02	Identify, develop and plan training materials to use in training and developing employees in a company.	18	2.78	2	4	8	4	3.28	0	2	9	7
BAPC03.01	Develop recruitment plan to obtain qualified employees.	18	2.83	1	6	6	5	3.22	0	2	10	6
BAPC03.02	Analyze company assessment of personnel needs to select qualified employees for current openings.	18	2.83	0	6	9	3	3.22	0	3	8	7
BAPC03.03	Develop separation, termination and transition procedures for processing employee personnel actions.	18	2.39	3	6	8	1	2.94	1	3	10	4

StatementCode	StatementDescription	#	Rsp	Q1 Avg	Q1=1	Q1=2	Q1=3	Q1=4	Q2 Avg	Q2=1	Q2=2	Q2=3	Q2=4
BAPC03.04	Identify key elements to develop and implement a performance appraisal system.	18	2.83	1	6	6	5	3.06	0	4	9	5	
BAPC04.01	Organize and maintain an organization's personnel policies and procedures documents to assure consistency.	18	2.94	2	4	5	7	3.39	0	1	9	8	
BAPC04.02	Establish and implement programs, practices and procedures to protect workers and the workplace.	18	2.94	1	3	10	4	3.22	0	1	12	5	
BAPC04.03	Formulate human resources objectives, practices and policies to contribute to organizational effectiveness.	18	2.83	3	4	4	7	3.00	0	5	8	5	
BAPC05.01	Recognize the importance of union-management relationships and contracts to ensure business continuity.	18	2.44	4	4	8	2	2.83	1	3	12	2	
<b>Cluster: Business, Management and Administration</b>		<b>Pathway: Business Analysis</b>											
BAPD01.01	Use reliable information to research the problem.	17	3.53	0	1	6	10	3.47	0	2	5	10	
BAPD01.02	Form a clear statement of the problem to ensure consistent understanding among all stakeholders.	17	3.24	2	2	3	10	3.18	2	1	6	8	
BAPD01.03	Formulate assumptions and a hypothesis to facilitate a solution.	17	2.88	3	3	4	7	2.94	1	5	5	6	
BAPD02.01	Compile data to validate assumptions and hypothesis.	17	3.00	2	3	5	7	3.00	2	2	7	6	
BAPD02.02	Evaluate the data to validate assumptions and hypothesis.	17	2.94	2	3	6	6	3.06	2	2	6	7	
BAPD03.01	Generate alternatives to facilitate comparisons.	17	2.88	2	3	7	5	2.76	2	3	9	3	
BAPD04.01	Explore possibilities to select the most beneficial solution.	16	3.31	0	3	5	8	3.38	0	2	6	8	
BAPD04.02	Prepare presentation of solutions to communicate to stakeholders.	17	3.18	0	4	6	7	3.29	0	3	6	8	
BAPD05.01	Communicate with all stakeholders throughout the process to ensure alignment of energies and resources..	17	3.00	2	2	7	6	3.00	1	3	8	5	
<b>Cluster: Business, Management and Administration</b>		<b>Pathway: Marketing &amp; Communications</b>											
BAPE01.01	Apply a variety of approaches to determine the appropriate price for a product/service.	20	2.85	1	4	12	3	3.10	0	1	16	3	

StatementCode	StatementDescription	# Rsp	Q1 Avg	Q1=1	Q1=2	Q1=3	Q1=4	Q2 Avg	Q2=1	Q2=2	Q2=3	Q2=4
BAPE01.02	Relate factors that influence price to a product's price.	20	2.75	2	5	9	4	3.10	0	4	10	6
BAPE01.03	Evaluate customers and their needs to determine pricing of product or service.	20	3.30	1	4	3	12	3.65	0	2	3	15
BAPE01.04	Apply pricing strategies to meet competition.	20	3.15	1	4	6	9	3.60	1	0	5	14
BAPE01.05	Apply technology to identify a variety of approaches for determining and monitoring pricing.	20	2.70	1	7	9	3	3.05	0	5	9	6
BAPE01.06	Apply strategies for determining and adjusting prices to maximize return and meet customer's perceptions of value.	20	2.75	3	3	10	4	3.15	0	3	11	6
BAPE02.01	Use strategies necessary to determine appropriate level of customer service.	20	2.75	2	6	7	5	3.25	0	4	7	9
BAPE03.01	Take necessary action to determine customer needs and wants and to respond through planned, personalized communication that influences purchase decisions.	20	2.95	0	7	7	6	3.40	0	1	10	9
BAPE03.02	Establish selling philosophies to develop customer loyalty and profitability.	20	2.80	1	9	3	7	3.15	0	5	7	8
BAPE03.03	Utilize product and company attributes to help the customer understand benefit outcomes.	20	2.95	1	4	10	5	3.05	1	3	10	6
BAPE03.04	Analyze client characteristics to facilitate the buying process.	20	2.65	2	6	9	3	3.05	0	4	11	5
BAPE03.05	Use accepted processes to complete the buying process.	20	2.75	2	5	9	4	3.20	0	3	10	7
BAPE04.01	Utilize standard processes to move, store, locate and/or transfer ownership of goods and services.	19	2.84	1	7	5	6	3.16	0	3	10	6
BAPE05.01	Disseminate information about products/services or firm to achieve a desired outcome for a product or service.	20	2.85	1	6	8	5	3.10	1	4	7	8
BAPE06.01	Utilize concepts, strategies and systems necessary to interact effectively with others	20	3.35	0	3	7	10	3.60	0	1	6	13
BAPE06.02	Develop and deliver the effective customer relations skills to provide good customer service.	20	3.55	0	2	5	13	3.85	0	1	1	18

StatementCode	StatementDescription	# Rsp	Q1 Avg	Q1=1	Q1=2	Q1=3	Q1=4	Q2 Avg	Q2=1	Q2=2	Q2=3	Q2=4
BAPE06.03	Provide ethical, legal and culturally sensitive information to customers and co-workers.	20	3.30	1	3	5	11	3.65	0	1	5	14
BAPE07.01	Apply the concepts and processes necessary to obtain, develop, maintain and improve a product/service mix.	19	2.63	1	7	9	2	2.89	1	4	10	4
BAPE07.02	Apply the product/service management function to a marketing business.	20	2.60	2	8	6	4	2.90	0	6	10	4
BAPE07.03	Apply various types of quality assurance to product service management.	19	2.74	1	6	9	3	3.05	0	3	12	4
BAPE07.04	Create a product mix that meets the needs of customers and produces a profit for the company.	20	2.80	1	6	9	4	3.45	0	1	9	10
BAPE07.05	Apply marketing factors to position products and services in a business.	20	2.85	1	6	8	5	3.25	0	3	9	8
<b>Cluster: Business, Management and Administration</b>												
<b>Pathway: Administrative &amp; Information Support</b>												
BAPF02.01	Use word processing software to produce documents.	30	3.90	0	0	3	27	3.83	0	0	5	25
BAPF02.02	Prepare documents for presentation.	30	3.37	0	3	13	14	3.33	0	1	14	14
BAPF02.03	Use database software to produce documents.	30	3.20	0	3	18	9	3.27	0	3	16	11
BAPF02.04	Use spreadsheet software to produce documents.	29	3.45	0	0	16	13	3.31	0	0	16	12
BAPF02.05	Choose appropriate software to enter information.	30	3.73	0	1	6	23	3.60	0	1	10	19
BAPF03.01	Establish and follow procedures to manage paper/manual records.	30	3.47	1	2	9	18	3.47	0	3	10	17
BAPF03.02	Establish and follow procedures for electronic filing.	29	3.10	2	2	16	9	3.21	0	2	19	8
BAPF03.03	Establish and follow procedures for image processing.	29	2.86	3	5	14	7	2.79	2	8	13	6
BAPF06.01	Apply planning and time management principles to accomplish workplace efficiency and achieve company objectives.	29	3.79	0	1	4	24	3.79	0	1	4	24
BAPF06.02	Plan and participate in meetings.	29	3.41	0	3	11	15	3.21	1	1	18	9

StatementCode	StatementDescription	# Rsp	Q1 Avg	Q1=1	Q1=2	Q1=3	Q1=4	Q2 Avg	Q2=1	Q2=2	Q2=3	Q2=4
BAPF06.03	Prepare a maintenance schedule to maintain and manage equipment and supplies.	28	2.86	2	8	10	8	2.96	1	6	14	7
BAPF06.04	Prepare travel arrangements.	29	2.45	5	11	8	5	2.76	1	10	13	5
BAPF07.01	Use telephone skills to communicate effectively.	30	3.97	0	0	1	29	3.93	0	1	0	29
BAPF07.02	Select appropriate formats to prepare internal and external written documents.	30	3.40	1	3	9	17	3.37	1	2	12	15
BAPF08.01	Maintain records and reports to manage cash and banking procedures.	30	2.73	5	6	11	8	3.20	1	4	13	12
BAPF08.02	Maintain employee time cards to manage payroll procedures.	30	2.43	6	9	11	4	3.10	1	4	16	9
BAPF09.01	Study component operation to prevent, diagnose, and solve computer operations problems.	29	2.72	4	6	13	6	3.14	0	5	15	9
<b>Totals:</b>		<b>1821</b>	<b>3.03</b>	<b>125</b>	<b>355</b>	<b>620</b>	<b>721</b>	<b>3.26</b>	<b>29</b>	<b>215</b>	<b>780</b>	<b>793</b>



**Section VIII – Assessment Protocol  
Certification Protocol**



## **Deliverable #7**

### **Title: Protocol for Career Clusters Assessment**

8/5/2002 4:00 PM

#### **Definition of Career Clusters Assessment**

Assessment, within the context of the Career Clusters Initiative, is defined as a *measurement of what a learner should know and be able to do*. The academic and technical knowledge and skills common to all occupations and pathways within a single cluster are initially addressed in the Career Clusters Initiative. Each cluster measures or assesses a learner's knowledge and skills related to the cluster.

#### **Purpose of the Protocol for Career Clusters Assessments**

The purpose of this document is to provide:

- Minimum criteria for selecting existing assessment instruments that align to the academic and technical knowledge and skills identified for each cluster.
- Minimum criteria for developing new assessment instruments that align to the academic and technical knowledge and skills identified for each cluster.
- Minimum criteria for validating and determining reliability of assessment instruments.

#### **Functions of Career Clusters Assessment**

Career Cluster Assessment serves to

- *measure (assess) student achievement*, both cognitive and performance, in areas of academic and technical knowledge and skills for each cluster
- *provide the basis* for a transportable, industry-endorsed certification.

#### **Operational Guidelines for Career Clusters Assessment**

This protocol includes minimum criteria/expectations career cluster designers need to apply in the selection/development of assessment modalities. Career clusters assessment:

##### **CONTENT**

- measures all 10 Foundation knowledge and skills.
- customizes context of questions and applications to individual clusters.
- reflects a high degree of specificity of measurable knowledge and skills.
- aligns to academic standards.
- connects to post high school standards and competencies.
- is consistent with Perkins data-quality criteria.

##### **FORM**

- combines a minimum of two modalities: cognitive and performance.
- includes an item bank that can accommodate multiple applications.
- reflects quality design and clear formats.

##### **APPLICATIONS AND USES**

- offers diagnostic feedback to the learner.
- provides added value to the user (employer, post high school); not required for employment.
- affords portability of results.
- provides cues for instruction.

**ADMINISTRATION**

- validates identity of test takers through a secure system.
- affords flexible administration, e.g. single assessment per foundation cluster topic or combination of topics.
- provides flexible timing for administration.
- affords no cost or low cost to students.
- includes an affordable, user-friendly process to cover administrative costs.
- reflects an administration process that is as consistent as possible with other career cluster assessments.
- includes an affordable, user-friendly maintenance process.

**VALIDITY AND RELIABILITY**

- uses consistent, reliable, and technically strong elements.
- is recognized by business and industry.
- is recognized by post high school education and training.

## **Deliverable #8**

### **Title: Protocol for Career Clusters Certification**

8/23/2002 2:28 PM

#### **Definition of Career Clusters Certification**

Certification, within the context of the States' Career Clusters Initiative, *documents* learner achievement of the academic and technical knowledge and skills common to all pathways and occupations within a cluster. It is based on valid and reliable assessments. A certificate is recognized by employers, secondary education, and post high school education as "value added to the admissions process to further education, immediate employment process, and/or to employment advancement".

#### **Purposes of the Protocol for Careers Cluster Certification**

The purposes of this document are to provide:

- Minimum criteria for selecting existing certification programs that align to the academic and technical knowledge and skills identified for each cluster.
- Minimum criteria for developing new certification programs that align to the academic and technical knowledge and skills identified for each cluster.
- Minimum criteria for determining the value of a certification program.

#### **Functions of Career Clusters Certification**

Career Cluster Certification serves to provide a consistent, transportable method of documenting learner achievement of a Career Cluster's validated academic and technical knowledge and skills. The system is based on valid and reliable assessments.

#### **Operational Guidelines for Career Clusters Certification**

This protocol includes minimum criteria/expectations career cluster designers need to apply in the selection/development of certification processes. Career clusters certification:

- Defines the purpose and scope of the certificate.
- Bases issue of the certificate on assessed learner proficiencies and competencies related to a Career Cluster's validated academic and technical knowledge and skills.
- Requires learner to meet the assessment benchmark identified.
- Informs the public concerning the knowledge and skills of the certificate holder.
- Indicates date of issue on the certificate.
- Issues certificate from the State (State Director of Career-Technical Education or appropriate designee) if the issuing organization is a secondary or post secondary education institution.
- Issues certificate from the CEO (or an appropriate designee) of an issuing professional organization/agency/institution/company.
- Requires issuing organization to maintain a database (state and/or national) of certificate holders based on the respective term of renewal.





National Association of State Directors  
of Career Technical Education Consortium

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